



# CCIE Route/Switch End-To-End Boot Camp - CCIE-RS-EE v5.0

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## Course Details

### Course Outline

#### 1. Day 1 (Class hours: 9:00 AM to 9:00 PM or later)

##### a. Lecture:

- DMVPN (GRE, mGRE, and NHRP)

##### b. Lab:

- First Fully graded Assessment Lab (6 Hours) Based on Version 5.0

##### c. Lecture:

- Port Security, DHCP Snooping, IP Source-Guard, DAI and ARP ACL, Private VLANs
- VLAN Access-maps and Storm Control

#### 2. Day 2 (Class hours: 9:00 AM to 9:00 PM or later)

##### a. Lecture:

- OSPF

##### b. Lab:

- OSPF Labs

##### c. Lecture:

- EIGRP

#### 2. Day 3 (Class hours: 9:00 AM to 9:00 PM or later)

##### a. Lecture:

- BGP

##### b. Lab:

- BGP Labs

##### c. Lecture:

- MPLS and L3VPNs

#### 3. Day 4 (Class hours: 9:00 AM to 9:00 PM or later)

##### a. Lecture:

- QoS - CoS, IP Prec, DSCP mappings, Classification (NBAR), Marking, Policing, Shaping
- Queuing, CBWRED



- IPv6 – Addressing, SLAAC, DHCPv6, Both, Prefix Delegation, Redundancy using IPv6 RS/RA
- RA Guard, ND Inspection/Snooping, IPv6 FHRP, IPv6 Filtering, NAT-PT (Static and Dynamic)
- EIGRPv6, OSPFv3, IPv6 and BGP.

**b. Lab:**

- Second Fully graded Assessment Lab which is a combination of two hours of Troubleshooting (30 routers per students emulating the real lab format for Version 5.0), followed by 6 hours of Configuration.

**3. Day 5 (Class hours: 9:00 AM to Noon)**

**a. Lecture:**

- Multicasting

**3. Day 6 (Class hours: 9:00 AM to 6:00 PM or later)**

**a. Lecture:**

- Route Redistribution

**b. Lab:**

- Troubleshooting Mock Lab – 1
- Troubleshooting Multicasting Labs

**3. Day 7 (Class hours: 9:00 AM to 6:00 PM or later)**

**a. Lecture:**

- RIPv2

**b. Lab:**

- Configuring RIPv2 Mock lab
- Configuring EIGRP Mock Lab
- Troubleshooting Mock Lab 2

**3. Day 8 (Class hours: 9:00 AM to 8:00 PM or later)**

**a. Lecture:**

- Cryptography, IPsec VPNs (S2S), VTI, Encrypting Traffic in DMVPN, IPv6 in IPv4 tunnels
- ACLs, and Time Based ACLs, and uRPF.

**b. Lab:**

- Troubleshooting OSPF Lab
- Troubleshooting BGP Lab



- Troubleshooting Mock Lab 3

**3. Day 9 (Class hours: 9:00 AM to 8:00 PM or later)**

**a. Lecture:**

- NAT, SSH, Conditional Debugging, Object Tracking, Embedded Packet Capture, HSRP, GLBP and VRRP
- NTP, DHCP, Syslog, Netflow v5 and v9

**b. Lab:**

- Troubleshooting MPLS lab
- Troubleshooting Mock Lab 4

**3. Day 10 (Class hours: 9:00 AM to 4:00 AM or later)**

**a. Lecture:**

- Trunks, Ether Channels, BPDU Guard, BPDU Filter, Loop Guard and Root Guard, SPAN, RSPAN, and ERSPAN

**b. Lab:**

- Troubleshooting Switching Lab 1
- Troubleshooting Switching Lab 2