

## ROUTE - Implementing Cisco IP Routing v1.0

Duration: 5 days

### Overview:

Implementing Cisco IP Routing (ROUTE) v1.0 is an instructor-led training course. This five-day course is designed to help students prepare for Cisco CCNP® certification. The ROUTE course is a component of the CCNP curriculum.

### Target Audience:

The ROUTE course is designed for network engineers with at least one year of professional work experience, who are ready to advance their skills and work independently on complex network solutions. Students will learn to plan, configure and verify the implementation of secure enterprise LAN and WAN routing solutions using a range of routing protocols. Course also covers configuration of solutions to support branch offices and mobile workers.

### Pre-requisites:

CCNA certification or equivalent knowledge.

### At Course Completion:

Upon completing this course, the student will be able to meet these overall objectives:

- Plan and document the configuration and verification of routing protocols and their optimization in enterprise networks.
- Identify the technologies, components, and metrics of EIGRP used to implement and verify EIGRP routing in diverse, large-scale internetworks based on requirements.
- Identify, analyze, and match OSPF multiarea routing functions and benefits for routing efficiencies in network operations in order to implement and verify OSPF routing in a complex enterprise network.
- Implement and verify a redistribution solution in a multi-protocol network that uses Cisco IOS features to control path selection and provides a loop-free topology according to a given network design and requirements.
- Evaluate common network performance issues and identify the tools needed to provide Layer 3 path control that uses Cisco IOS features to control the path.
- Implement and verify a Layer 3 solution using BGP to connect an enterprise network to a service provider.

### Course Modules:

1. Planning Routing Services
2. Implementing an EIGRP based Solution
3. Implementing a Scalable Multiarea Network OSPF based Solution
4. Implement an IPv4 based redistribution solution
5. Implement Path Control
6. Connecting an Enterprise Network to ISP Networks