



## Enhanced Network Solutions Group

Systems Integration • Learning Solutions • CIO Consulting  
Managed Outsourcing • Healthcare Solutions • Security Solutions

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# ROUTE Implementing Cisco IP Routing

*(Note: ROUTE/SWITCH and ROUTE/TSHOOT formats available for students who meet prerequisite skills; 10-12 hours per day, Mon-Sat)*

ROUTE Rev 05.11

## 5 days

### Description

This five-day course and 7.5 hours of self-paced e-learning is designed to help students prepare for Cisco CCNP® certification. The ROUTE course is a component of the CCNP curriculum.

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. The course also covers configuration of solutions to support branch offices and mobile workers.

### Prerequisites

- CCNA

### Course Objectives

After completing this course, the learner 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 multi-area 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 Outline

**Module 1: Planning Routing Services**

**Module 2: Implementing an EIGRP-based Solution**

**Module 3: Implementing a Scalable Multi-area Network OSPF-based Solution**

**Module 4: Implement an IPv4-based Redistribution Solution**

**Module 5: Implement Path Control**

**Module 6: Connecting an Enterprise Network to ISP Networks**

**E-Learning ROUTE-01 of 3: Implement Path Control**

**E-Learning ROUTE-02 of 3: Implementing IPv6**

**E-Learning ROUTE-03 of 3: Implementing Routing Facilities for Branch Offices and Mobile Workers**



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