

CCNP Route Syllabus



General Information

Description

The Implementing Cisco IP Routing (ROUTE 642-902) is a qualifying exam for the Cisco Certified Network Professional CCNP®, Cisco Certified Internetwork Professional CCIP®, and Cisco Certified Design Professional CCDP® certifications. The ROUTE 642-902 exam will certify that the successful candidate has the knowledge and skills necessary to use advanced IP addressing and routing in implementing scalable and secure Cisco ISR routers connected to LANs and WANs. The exam also covers configuration of secure routing solutions to support branch offices and mobile workers.

Step	Paper	Required Exam
1	Route	642-902

Prerequisites: Valid CCNA Route and Switch is a prerequisite to CCNP Route and Switch.

Certificate Validity: Even clearing one paper extends existing CCNA certificate for 3 more years.

Course Deliverables

Classroom Training

Instructor led classroom training will be given. All classes are demonstration based. We don't teach just theory. We teach every concept using real-time case studies. All our classrooms are digital classrooms.

Lab

Students can practice all the concepts taught in classrooms at our Lab facility. Each student will be given individual setup to practice the lab. They need not combine and do labs. Our lab coordinators will help you when you are doing the labs

Books and workbooks

Students will be a given textbooks and workbooks for the course.

Course Details

Unit 1	Topic
Implement an EIGRP based solution, given a network design and a set of requirements	Determine network resources needed for implementing EIGRP in a network
	Create an EIGRP implementation plan
	Create an EIGRP verification plan
	Configure EIGRP routing
	Verify an EIGRP solution was implemented properly using show and debug commands
	Document the verification results for an EIGRP implementation
Unit 2	Topic
Implement a multi-area OSPF Network, given a network design and a set of requirements	Determine network resources needed for implementing OSPF on a network
	Create an OSPF implementation plan
	Create an OSPF verification plan
	Configure OSPF routing
	Verify OSPF solution was implemented properly using show and debug commands
	Document the verification results for an OSPF implementation plan

Unit 3	Topic
Implement an eBGP based solution, given a network design and a set of requirements	Determine network resources needed for implementing eBGP on a network
	Create an eBGP implementation plan
	Create an eBGP verification plan
	Configure eBGP routing
	Verify eBGP solution was implemented properly using show and debug commands
	Document verification results for an eBGP implementation plan
Unit 4	Topic
Implement an IPv6 based solution, given a network design and a set of requirements	Determine network resources needed for implementing IPv6 on a network
	Create an IPv6 implementation plan
	Create an IPv6 verification plan
	Configure IPv6 routing
	Configure IPv6 interoperation with IPv4
	Verify IPv6 solution was implemented properly using show and debug commands
	Document verification results for an IPv6 implementation plan
Unit 5	Topic
Implement an IPv4 or IPv6 based redistribution solution, given a network design and a set of requirements	Create a redistribution implementation plan based upon the results from a redistribution analysis
	Create a redistribution verification plan
	Configure a redistribution solution
	Verify that a redistribution was implemented
	Document results of a redistribution implementation and verification plan
	Identify the differences between implementing an IPv4 and IPv6 redistribution solution
Unit 6	Topic
Implement Layer 3 Path Control Solution	Create a Layer 3 path control implementation plan based upon the results of the redistribution analysis
	Create a Layer 3 path control verification plan
	Configure Layer 3 path control
	Verify that a Layer 3 path control was implemented
	Document results of a Layer 3 path control implementation and verification plan
	Implement basic teleworker and branch services
	Describe broadband technologies
	Configure basic broadband connections
	Describe basic VPN technologies
	Configure GRE
Describe branch access technologies	

Note: Routing part of TShoot is also covered as part of the course.