Cisco | Networking Academy®
Mind Wide Open™

CCNA Exploration

Opportunity

We live in an increasingly connected world, creating a global economy and a growing need for technical skills. Cisco Networking Academy delivers information technology skills to over 500,000 students a year in more than 165 countries worldwide. Networking Academy students have the opportunity to participate in a powerful and consistent learning experience that is supported by high quality, online curricula and assessments, instructor training, hands-on labs, and classroom interaction. This experience ensures the same level of qualifications and skills regardless of where in the world a student is located.

Networking Academy students will become the architects of the networked economy; enabling everyday experiences on the global human network. With the ever-increasing demand for their skills, Networking Academy students have the chance to dream about business-critical positions never before imagined, in industries ranging from medicine and finance to entertainment and aerospace. Networking Academy opens doors to rewarding careers and opportunities for economic advancement and local community development. Students only need to be 'Mind Wide Open' to the possibilities.

Solution

The Cisco CCNA® Exploration curriculum provides a comprehensive overview of networking; from fundamentals to advanced applications and services. It is based on a top-down approach to networking that is popular in many colleges and universities. This course emphasizes theoretical concepts and practical application, while providing opportunities for students to gain the skills and

hands-on experience needed to design, install, operate, and maintain networks.

CCNA Exploration offers in-depth theory, challenging labs, and a detailed overview of protocol operations. It is designed for students with advanced problem-solving and analytical skills, such as degree candidates in engineering, math, or science, or for working professionals who would like to advance their careers or gain certification. CCNA Exploration helps students prepare for successful IT careers in small-to-medium businesses, as well as enterprise and service provider environments.

CCNA Exploration can be integrated into technology curricula or continuing education programs at postsecondary institutions such as technical schools, colleges, and universities.

Features

CCNA Exploration courses include embedded e-doing, which enables students to complete interactive activities that stimulate learning and improve knowledge retention. E-doing involves rich multimedia, including Flash-based activities, videos, and interactive quizzes, that address a variety of learning styles, increase comprehension, and provide a rich learning experience.

All CCNA Exploration courses include complex and challenging hands-on labs to help students develop critical thinking, problem solving, and collaboration skills, as well as practical knowledge.

Course Description

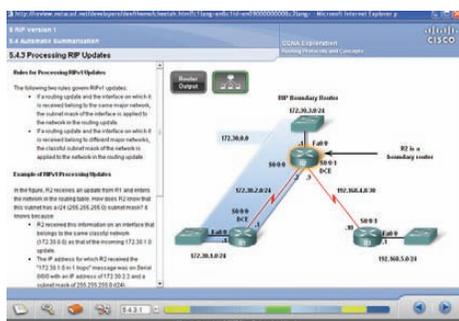The CCNA Exploration curriculum is composed of four courses:

· Network Fundamentals

· Routing Protocols and Concepts

· LAN Switching and Wireless

· Accessing the WAN

Network Fundamentals is the first course and it has no prerequisites. It is a prerequisite for the other three courses. Routing Protocols and Concepts is the preferred second course in the sequence.

Packet Tracer

The curriculum encourages students to explore networking concepts with tools such as Packet Tracer, a powerful network simulation program developed by Cisco that allows students to experiment with network behavior and ask "what if" questions.

CCNA Exploration integrates related engineering concepts and provides students with the skills needed to succeed in networking-related degree programs. The curriculum allows students to learn skills in a comprehensive, theoretical, and practical way that is reflective of common educational practices at the college level. It offers flexibility in curriculum delivery and permits shortened course delivery time. CCNA Exploration also provides an introduction to advanced technologies such as voice, video, wireless, and security.

Industry Standard Certification

The CCNA Exploration curriculum prepares students for the Cisco CCNA® network associate certification exam. CCNA is the industry standard, foundational certification for networking careers. Students need to complete all four courses of CCNA Exploration to fully prepare for the CCNA exam.

Skills and Competencies

Here are some examples of the skills students will be able to perform after completing each course:

Network Fundamentals	Routing Protocols and Concepts
Use network protocol models to explain the layers of communications in data networks	Configure and verify router interfaces
Design, calculate, and apply subnet masks and addresses	Demonstrate comprehensive RIPv1 configuration skills
Build a simple Ethernet network using routers and switches	Design and implement a classless IP addressing scheme for a network
Employ basic cabling and network designs to connect devices	Use advanced configuration commands with routers implementing EIGRP
Use Cisco CLI commands to perform basic router and switch configuration and verification	Apply the basic RIPv2 configuration commands and evaluate RIPv2 classless routing updates
Analyze the operations and feature of the transport and network layer protocols and services	Identify the characteristics of distance vector routing protocols
LAN Switching and Wireless	**Accessing the WAN**
Troubleshoot common network problems at Layers 1, 2, 3, and 7 using a layered model approach	Describe the impact of applications (Voice Over IP and Video Over IP) on a network
Interpret network diagrams	Configure, verify, and troubleshoot DHCP and DNS operation on a router
Perform and verify initial switch configuration tasks including remote access management	Verify, monitor, and troubleshoot ACLs in a network environment
Configure, verify, and troubleshoot VLANs, interVLAN routing, VTP, trunking on Cisco switches, and RSTP operation	Configure and verify a basic WAN serial connection, a PPP connection between Cisco routers, and Frame Relay
Manage IOS configuration files	Configure and verify a PPP connection between Cisco routers, and Frame Relay on Cisco routers
Identify the basic parameters to configure a wireless network and common implementation issues	Troubleshoot WAN implementation issues

For more information

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