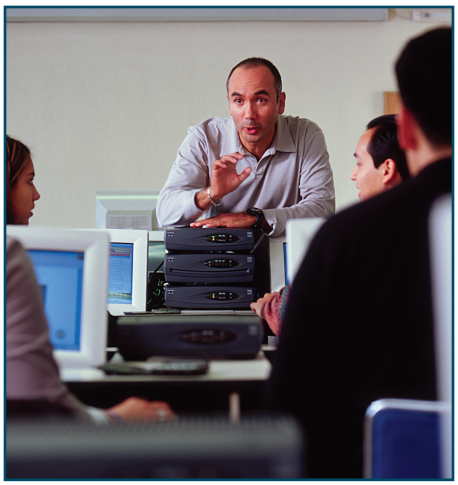
Cisco Systems

Cisco Networking Academy Program

Panduit Network Infrastructure Essentials



The Cisco® Networking Academy® Program teaches valuable networking and IT skills to students and workers worldwide who are interested in expanding their IT knowledge or starting a career in the technology industry. The Networking Academy program fosters local economic growth by providing innovative IT curricula, as well as instructor development and support, to help produce a skilled workforce.

Changing the Way People Learn

More than two million students have successfully completed Cisco Networking Academy Program courses in high schools, colleges and universities, technical and military schools, and community-based educational organizations around the world. The courses use a blended learning model to integrate face-to-face teaching with challenging online curricula, hands-on lab exercises, and an Internet-based assessment tool.

Since being launched in 1997, the Networking Academy program has been implemented in more than 165 countries, with courses taught in nine languages. This industry-leading program provides an educational framework that prepares students for networking and IT-related careers in the public and private sectors, as well as for higher education in engineering, computer science, and related fields.

Panduit Network Infrastructure Essentials

Panduit Corporation, a world leader in network and electrical solutions, manufactures high-quality products for wiring and communications applications. Panduit has partnered with the Cisco Networking Academy Program to sponsor the customer-driven Panduit Network Infrastructure Essentials (PNIE) course.

This course provides hands-on training and innovative instruction for students who are interested in successfully mastering the physical layer of a network, where 70 percent of all network problems occur.

PNIE gives Cisco Networking Academies the opportunity to deliver a course on the installation and management of the physical layer of a network. This 70-hour, lab-oriented course focuses on cable management and installation, documentation, design, lab safety and on-the-job safety, and working effectively in groups.

Students will become familiar with cabling issues related to data and voice connections, media and transmissions practices, and customer support. This course provides an overview of cabling and networking industry standards as well as emerging cabling technologies.

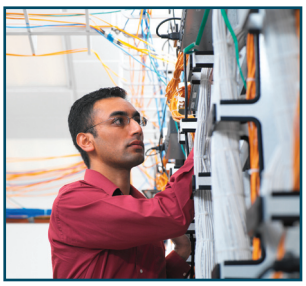
By providing an overview of current practices in cabling, grounding, and physical layer management, the course helps prepare students for opportunities in the networking field. Career options range from cabling technician and network maintenance positions to overall network management. The successful completion of this course is a critical differentiator in a job market where more than 100,000[1] companies worldwide require individuals with structured cabling expertise.

Critical Competencies

Students receive a certificate of course completion when they successfully complete the *PNIE* course.

Students will acquire competencies in the following areas:

- The international cabling industry and marketplace standards
- Basic networking concepts and topologies, the OSI reference model, and the main functions of each layer
- Signal transmission, basics of electrical and optical transmission theory, basic wireless systems theory, and the cause and effects of signal degradation
- Schematics of copper cabling in the form of twisted-pair and shielded twisted-pair, as well as the respective standards and coaxial cable schematics
- Different modes of fiber optics and implications of dispersion and attenuation
- Essential lab safety principles and local, national, and international safety codes of conduct



1. Source: PNIE Course Overview Presentation, Panduit Corporation, 2004. A solid network infrastructure provides the dependability needed to keep a data center running efficiently.

- Cabling installation processes as well as rough-in, trim-out, and finish phases
- Physical layer management

Meaningful Industry Certification

PNIE will prepare students for the Panduit Certified Technician (PCT).

Comprehensive Internet Skills for Economic Growth

The PNIE course expands and strengthens the Cisco Networking Academy Program curricula. This course is a strong complement to the Cisco CCNA® curriculum and teaches students how to create the entire physical layer of a network, from the cables and routers to the switches.

Networking Academy Program Curricula Overview

Like the other Networking Academy program courses, the PNIE course is taught by trained instructors who deliver standards-based, high-quality content in specially equipped labs, where students practice hands-on exercises to apply the concepts they learn. Cisco updates the curricula periodically to encompass new technologies and improved instructional techniques.

The Networking Academy program courses prepare students for a variety of careers in network design and administration, technical support, PC maintenance, and Java programming.

The associate-level CCNA course covers the foundations of networking. The professional-level Cisco CCNP® course builds on the CCNA curriculum with more complex network configurations, network diagnosis, and troubleshooting.

Network Security course teaches students how to design and implement security solutions to reduce the risk of revenue loss and vulnerability resulting from breaches in network security. *Fundamentals of Wireless LANs* is an introductory course that covers the design, planning, implementation, operation, and troubleshooting of wireless networks.

Additional Academy courses include *IT Essentials I* and *II*, which cover PC maintenance and support as well as network operating systems; *Fundamentals of Java Programming*; and *Fundamentals of UNIX*.

For each successfully completed Networking Academy course, students receive certificates of completion that acknowledge their newly acquired skills and competencies. In addition, students may attempt to gain industry certification by taking the corresponding certification exam at a third-party testing center. These exams usually require some additional study beyond the course materials.

The following chart lists Academy program courses and their corresponding certifications.

Networking Academy Program Course	Industry Certification
CCNA modules 1–4	CCNA certification
CCNP modules 1–4	CCNP certification
Fundamentals of Java Programming	Sun Certified Programmer for Java 2 Platform
Fundamentals of UNIX	CompTIA Linux+ (when combined with IT Essentials II)
IT Essentials I: PC Hardware and Software	CompTIA A+
IT Essentials II: Network Operating Systems	CompTIA Linux+ (when combined with Fundamentals of UNIX)
Network Security	Cisco Firewall Specialist
Panduit Network Infrastructure Essentials (PNIE)	Panduit Certified Technician (PCT)

For More Information

Cisco Networking Academy Program
www.cisco.com/go/netacad

Course Catalog
www.cisco.com/edu/courses

Locate a Networking Academy
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Printed in the USA C78-358496-00 09/06