

National University *The University of Values*

Division of Extended Learning



Network Systems and Data Communications Analysts are expected to have the fastest job growth rate through 2016.

– California Employment Development Department

California is one of the top paying states for Network and Computer Systems Administrators.

– Bureau of Labor



Cisco Networking Academy

CCNA Academy courses are taught with Cisco's latest state-of-the-art equipment at National University's newest campus in Kearny Mesa. All courses are taught by instructors who are specially trained and certified by Cisco to teach Cisco Academy courses.

Cisco Certified Network Associate (CCNA) is the industry standard, foundational certification for networking careers.

The Cisco CCNA Exploration training program is an opportunity for individuals to gain a comprehensive overview of networking through a powerful and consistent learning experience supported by high-quality, online curricula and assessments, instructor training, hands-on labs, and classroom interaction.

The program 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. The program prepares students for CCNA certification and for successful IT careers in small-to-medium sized businesses, as well as enterprise and service provider environments. Students need to complete all eight courses of the CCNA Exploration to fully prepare for the CCNA exam.

CCNA Exploration and Certification Test Preparation

- PSX 1100X Network Fundamentals I
- PSX 1101X Network Fundamentals II
- PSX 1102X Routing Protocols & Concepts I
- PSX 1103X Routing Protocols & Concepts II
- PSX 1104X LAN Switching & Wireless I
- PSX 1105X LAN Switching & Wireless II
- PSX 1106X Accessing the WAN I
- PSX 1107X Accessing the WAN II

Course descriptions and schedule on reverse.

Enroll Today! Call (800) NAT-UNIV or visit www.nu.edu/el



Cisco CCNA Exploration Certification Test Preparation

This training program prepares students for CCNA certification, the industry standard foundational certification for networking careers. Students need to complete all eight CCNA Exploration courses in sequential order to fully prepare for the CCNA exam. Each course meets twice a week for four weeks ending with a Saturday session for the final. Students who successfully complete all course requirements will earn 2.25 quarter units per course. Courses may be used to fulfill some degree requirements.

Additional cohorts may be scheduled on demand, when available. CCNA course scheduling is aligned with ITM program courses to facilitate timely academic options for the students.

Schedule}	Days and Times:	5:30 – 9:30 p.m., Mondays and Wednesdays
	Location:	National University, 3580 Aero Court, San Diego, CA 92123-1711
	Fee:	\$525 per course

Course Descriptions

PSX 1100X

Network Fundamentals I

(2.25 quarter units)

Provides classroom and laboratory experience of the architecture, structure, functions, components, and models of the Internet and other computer networks that uses the OSI and TCP layered models. A “model Internet” and Packet Tracer (PT) activities help students analyze protocol and network operation and build small networks in a simulated environment. These activities encourage students to explore networking concepts and to experiment with network behavior.

PSX 1101X

Network Fundamentals II

(2.25 quarter units)

This course provides a comprehensive, theoretical, and practical approach to the architecture, structure, functions, components, and models of the Internet and other computer networks. It also introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Students build simple LAN topologies by applying basic principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. *(Prerequisite: PSX 1100X)*

PSX 1102X

Routing Protocols & Concepts I

(2.25 quarter units)

Describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the

popular routing protocol IPv4. Students model and analyze routing processes that may be difficult to visualize or understand. Topics include: Introduction to Routing and Packet Forwarding; Static Routing; Dynamic Routing Protocols; Distance Vector Routing Protocols, and IPv4. *(Prerequisite: PSX 1101X)*

PSX 1103X

Routing Protocols & Concepts II

(2.25 quarter units)

Students analyze, configure, verify, and troubleshoot the primary routing protocols IPv4, EIGRP, and OSPF. They will be able to recognize and correct common routing issues and problems through a procedural lab, and a configuration, implementation, and troubleshooting labs. Packet Tracer (PT) activities reinforce new concepts, and allow students to model and analyze routing processes that may be difficult to visualize or understand. Topics include VLSM, CIDR; IPv4; EIGRP; and Link- State Routing Protocols; OSPF. *(Prerequisite: PSX 1102X)*

PSX 1104X

LAN Switching & Wireless I

(2.25 quarter units)

Provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn about the hierarchical network design model and how to select devices for each layer. Students will focus on how to configure a switch for basic functionality, how to implement virtual LANs, and VLAN Trunking Protocol (VTP). Topics include: LAN Design, Basic Switch Concepts and Configuration; VLANs and VTP. *(Prerequisite: PSX 1103X)*

PSX1105X

LAN Switching & Wireless II

(2.25 quarter units)

Provides a continuing study of the comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn about the different implementations of Spanning Tree Protocol in a converged network, inter-VLAN routing, and the skills necessary to implement a wireless LAN (WLAN) in a small-to-medium network. Topics include STP; Inter-VLAN Routing; Basic Wireless Concepts, and Configuration. *(Prerequisite: PSX 1104X)*

PSX1106X

Accessing the WAN I

(2.25 quarter units)

Covers the basic technologies used in a wide area network environment. The course describes how to use and configure PPP, Frame Relay, Network Security, and Cisco SDM. Topics include: Introduction to WANs; PPP; Frame Relay; and Network Security – SDM. *(Prerequisite: PSX 1105X)*

PSX 1107X

Accessing the WAN II

(2.25 quarter units)

This course continues with the study of the basic technologies used in a wide area network environment. It describes how to use and configure devices and protocols to access a Wide Area Network. Topics include ACLs, Teleworker Services, IP Addressing Services, and Network Troubleshooting. *(Prerequisite: PSX 1106X)*

One-Course-Per-Month Format

Undergraduate and Graduate Programs

Online Degrees

WASC Accredited

Year-Round Registration

Convenient Locations

Enroll Today! Call (800) NAT-UNIV or visit www.nu.edu/el

