What is a Network Engineer?

Network engineers are members of an organization’s Information Technology team, and they are critical to the success of an organization. A network engineer’s responsibilities can include the designing, building, configuring and testing of a network infrastructure (e.g. servers, routers, switches, cybersecurity, Wi-Fi, cabling, fiber optic technology, and endpoints such as access points, IP cameras, VoIP, and Internet of Things).

What is the NETX Program?

The Network Engineering Technology (NETX) program is designed to serve students entering the field, as well as those who are upgrading their skills in specific areas of network infrastructure, structured cabling, fiber optics technology, wireless, system administration, PC hardware, and cybersecurity. As our society continues to expand into the information age, most, if not all, companies and industries will involve network communication. Our program provides students with the education and skills to be a successful network engineer. The NETX program will also provide traditional network engineers, software programmers, and other IT professionals with the knowledge and hands-on learning vital to their success with current and emerging technology.

What does the NETX Program offer?

- Hands-on activity-based learning with industry hardware and software equipment: Cisco, Juniper, Check Point, Palo Alto Network (PAN), Linux, Microsoft server, cloud computing, Wireshark, structured cabling (FOA) and fiber optic technology (FOA)
- Labs using routers, switches, security appliances, wireless access points, structured cabling and fiber optic cables
- Classroom instruction centered on current technologies taught by faculty currently working in the network industry
- Courses focused on training for industry certifications: Cisco’s CCNA, FOA (Fiber Optic Association – CPCT), CompTIA’s A+ and Network+, Check Point’s CCSA
- Associate degree and Certificate programs in network engineering
- Starting salary can range from $70K+ per year depending on experience and qualifications

Who we are

NETX instructors are working professionals with decades of industry experience, including ISPs, Data Centers, Equinix, SFO Airport, Veterans Affairs (DVA), San Francisco Public Utilities Commission (SFPUC), San Mateo County, and educational institutions. Collectively, they have earned many industry certifications, including CISSP, CCSA, PMP, CCNA, Security, Linux+, A+, Aruba, and more.
How long will the program take?

A full-time student can receive a Network Engineering Certificate in eighteen months or less. Completion of the Associate Degree will take longer and will depend on how many units a student is able to carry at one time. Individual skill endorsements in PC configuration and repair, entry level Computer User Support, Networking Essential, and Wiring and Installation can be attained in two semesters. Our program is available primarily for evening students.

What qualifications and skills will be needed?

Enthusiasm and a willingness to learn, basic math, communications, and basic computer skills are essential. The technician must have excellent color vision and an ability to manipulate hand tools and small objects.

The NETX program will allow you to develop technical skills in routing and configuring networks, reading and troubleshooting circuits, building and configuring computers, understanding hardware and software installations, and proper operation of hand tools and test equipment. Advanced skills include testing and troubleshooting data transmission systems, voice switching networks, wireless, structured cabling and fiber optics, and other complex communication systems.

How much will it cost?

Student fees are assessed by the number of enrolled units per semester. Books, a few tools, parking permits, and health fees will also need to be purchased. For college fees, go to:

skylinecollege.edu/fees/index.php

How do I get started?

For more information on how to get started and advanced placement options, contact:

Norman Del Prado
NETX Program Director
delpradon@smccd.edu
(650) 738-4495

Quintin “Q” Cortes
Veterans NETX Program Advisor
cortesq@smccd.edu
(415) 370-6089

Radni Pirehabdollahkandi
NETX Program Mentor
pirehabdollahkandi@smccd.edu
(408) 455-1698

REQUIRED COURSES

NETX 400
Introduction to Local Area Network 3 units

NETX 420
PC Configuration and Repair 6 units

NETX 430
Introduction to Routers 3 units

NETX 431
Network Switches - Concepts and Applications 3 units

NETX 432
Routing Concepts and Applications 3 units

NETX 435
Network Security 3 units

NETX 439
Troubleshooting the Internetwork 3 units

Plus a minimum of 9 units from the following:

NETX 402
Cybersecurity Infrastructure Essentials 3 units

NETX 403
Cloud Infrastructure Essentials 3 units

NETX 410
Structured Wiring and Cabling 3 units

NETX 411
Fiber Optics Technology 3 units

NETX 401
Survey of Networking and Wireless Technologies 3 units

NETX 413
Wireless Local Area Networks 3 units

NETX 421
A+ Certification Exam Prep 2 units

NETX 423
Mobile Device Connectivity Support 2 units

NETX 443
Introduction to Linux Administration 3.5 units

NETX 450
Voice Over IP (VoIP) Essentials 3 units

ELEC 111
Introduction to Electronics Fundamentals 3 units

TOTAL REQUIRED UNITS: 36