

Cisco Academy Offerings

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<https://www.netacad.com/#educators>

<https://skillsforall.com> (Courses)

Links to Cisco Curriculum Summaries

Networking

Infrastructure Automation

Cybersecurity

Operating Systems & Information Technology

Internet of Things

Packet Tracer

Programming

Data

Networking

- Networking Essentials
 - Plan and install a home or small business network using wireless technology, then connect it to the Internet.
 - Develop critical thinking and problem-solving skills using Cisco Packet Tracer.
 - Practice verifying and troubleshooting network and Internet connectivity.
 - Recognize and mitigate security threats to a home network.
- CCNA: Introduction to Networks (M State Cisco 1)
 - Build simple LANs, perform basic configurations for routers and switches, and implement IPv4 and IPv6 addressing schemes.
 - Configure routers, switches, and end devices to provide access to local and remote network resources and to enable end-to-end connectivity between remote devices.
 - Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
 - Configure and troubleshoot connectivity a small network using security best practices.
- CCNA: Switching, Routing, and Wireless Essentials (M State Cisco 2)
 - Work with routers, switches and wireless devices to configure and troubleshoot VLANs, Wireless LANs and Inter-VLAN routing.
 - Configure and troubleshoot redundancy on a switched network using STP and EtherChannel.
 - Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
 - Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- CCNA: Enterprise Networking, Security, and Automation (M State Cisco 3)
 - Work with routers and switches using OSPF in point-to-point and multiaccess networks.
 - Mitigate threats and enhance network security using access control lists and security best practices.
 - Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
 - Understand virtualization, SDN, and how APIs and configuration management tools enable network automation.
- CCNP Enterprise: Core Networking
 - Implement advanced technologies to support a secure and scalable enterprise network architecture.
 - Configure enterprise networks for high availability and optimized performance.
 - Configure and manage secure site-to-site, remote-access, and wireless networks.
 - Deepen your understanding of virtualization and network automation.
- CCNP Enterprise: Advance Routing
 - Deploy advanced IPv4 and IPv6 technologies to support a scalable enterprise network architecture.
 - Configure and manage secure site-to-site and remote-access networks using tunneling technologies.
 - Optimize network performance using multi-protocol route redistribution and conditional forwarding.
 - Implement secure mechanisms for network infrastructure and troubleshoot security threats.

Infrastructure Automation

- DevNet Associate
 - Practice software development skills, including Python, GIT, and common data formats (XML, JSON, and YAML).
 - Become familiar with infrastructure automation using code, DevOps methodology, and microservices.
 - Deploy applications as containers and use Continuous Integration/Continuous Deployment (CI/CD) pipelines.
 - Develop critical thinking and problem-solving skills using Cisco Packet Tracer and virtual machines.
- Workshop: Model-Driven
 - Use Python with RESTCONF and NETCONF APIs to retrieve and update the device's configuration.
 - Describe a different approach to software-defined networking (SDN), including central application policy control.
 - Use software concepts and tools relevant to network programmability including Python scripting, Git, JSON, Postman, and APIs.
 - Join developer professional communities such as Cisco DevNet, GitHub, and Stack Overflow.
- Workshop: REST APIs using Webex Teams
 - Move from hearing buzzwords to having real hands-on experience with how “REST APIs” support the “Programmability” of applications.
 - Learn why Python is the high-demand software language for network programmability, and use it with developer tools like JSON and Postman.
 - Develop first application on a real-world cloud collaboration platform with Webex Teams.
 - Join developer professional communities such as Cisco DevNet, GitHub, and Stack Overflow.

Cybersecurity

- Cloud Security
 - In-depth understanding of the full capabilities of cloud computing.
 - Knowledge to effectively develop a holistic cloud security program relative to globally accepted standards
 - Understand best practices for Identity and Access Management (IAM), cloud incident response, application security, data encryption, Security as a Service, and securing emerging technologies.
 - Prepare for Certificate of Cloud Security Knowledge (CCSK) certification.
- Introduction to Cybersecurity
 - Learn what cybersecurity is and its potential impact to you.
 - Understand the most common threats, attacks and vulnerabilities.
 - Gain insights for how businesses protect their operations from attacks.
 - Find the latest job trends and why cybersecurity continues to grow.
- Cybersecurity Essentials
 - Understand security controls for networks, servers and applications.
 - Learn valuable security principals and how to develop compliant policies.
 - Implement proper procedures for data confidentiality and availability.
 - Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
- CyberOps Associate
 - Deepen knowledge in how best to detect and respond to security incidents.
 - Gain job-ready, practical skills in cybersecurity operations.
 - Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
 - Prepare for Cisco Certified CyberOps Associate Certification.
- Network Security
 - Develop an in-depth understanding of network security.
 - Design, implement, and support security for networked devices and data.
 - Earn critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
 - Gain industry recognized skills aligned with the National Institute for Standards and Technology (NIST) Cybersecurity Framework.
- IoT Fundamentals: IoT Security
 - Conduct end-to-end security assessments of IoT systems to demonstrate vulnerabilities.
 - Gain hands-on experience with IoT prototypes using a Raspberry Pi.
 - Recommend threat mitigation measures to minimize the risk in IoT solutions and networks.
 - Become proficient using real-world penetration and vulnerability testing tools such as Kali Linux.

OS & IT (Operating System & Information Technology)

- Get Connected
 - Create accounts for Facebook, LinkedIn and YouTube.
 - Understand computer networking and how to browse and search the Internet.
 - Become familiar with Microsoft Windows and how to work with files and folders.
 - Identify common problems and implement solutions.
- NDG Linux Unhatched
 - Basic installation and configuration of Linux software.
 - Understand the basics of the Linux Command Line Interface (CLI).
 - Interact with the Linux virtual machine.
 - Determine if Linux is for you or not.
- IT Essentials
 - Install, configure, and troubleshoot computers and mobile devices.
 - Identify common security threats like phishing and spoofing.
 - Develop critical thinking and problem-solving skills using both real equipment and Cisco Packet Tracer.
 - Prepare for CompTIA A+ Certification.
- NDG Linux Essentials
 - Acquire open source concepts and progressively master Linux commands.
 - Understand how Linux is used and the basics of its command line.
 - Become skilled at using the Linux virtual machine for experiments.
 - Prepare for LPI Linux Essentials Professional Development Certificate (PDC).
- NDG Linux 1
 - Gain a working knowledge of the Linux command line.
 - Install and configure a computer running Linux.
 - Configure basic networking using virtual machines.
 - First course in 2-course series needed for preparing for LPIC-1 (Exam 101) Certification.
- NDG Linux 2
 - Augment your basic knowledge to become skilled in the Linux command line.
 - Configure basic networking, using virtual machines running Linux.
 - Perform scripting and data management; learn about interfaces, networking fundamentals and security.
 - Prepare for certification LPIC-1 (Exam 102).

Internet of Things

- Introduction to IoT
 - Learn how the current digital transformation is creating unprecedented economic opportunity.
 - Understand how the IoT is bridging the gap between operational and information technology systems.
 - Discover how standard business processes are being transformed.
 - The security concerns that must be considered when implementing IoT solutions.
- IoT Fundamentals: Big Data Analytics
 - Use Python to create code that reads data from sensors and stores it in a SQL database.
 - Visualize, clean, manipulate and integrate data sets.
 - Learn fundamental principles of Big Data platforms like Hadoop.
 - Use storytelling to present insights gained from extracted data.
- IoT Fundamentals: Connecting Things
 - Learn how the current digital transformation is creating unprecedented economic opportunity.
 - Understand how the IoT is bridging the gap between operational and information technology systems.
 - Develop critical thinking and problem-solving skills using both real equipment and Cisco Packet Tracer.
 - Soft skills such as teamwork and articulating problems and solutions in a business context.
- IoT Fundamentals: Hackathon Playbook
 - Identify a problem, create a design, then plan for an IoT solution.
 - Develop a prototype of an IoT solution.
 - Test and validate your prototype.
 - Present IoT concept and solution to experts.

Packet Tracer (Skills for All)

- Getting Started with Cisco Packet Tracer
- Exploring Networking with Cisco Packet Tracer
- Exploring Internet of Things with Cisco Packet Tracer
 - Create Your Own Smart Home Network
 - Environmental Controls and IoT Things in Packet Tracer

Programming

- JavaScript Essentials 1
 - Think algorithmically and analyze problems.
 - Design, develop, and improve JavaScript programs.
 - Understand a programmer's work in the software development process and the role of fundamental development tools.
 - Know how a program is interpreted and executed in an actual local and remote computer environment.
 - Create and develop your own programming portfolio.
- PCAP: Programming Essentials in Python
 - Think algorithmically – how to analyze a problem and translate it for a computer to process.
 - Design, develop, and improve multi-module computer programs.
 - Analyze and model real-life problems in Object-Oriented Programming categories.
 - Understand a programmer's work in the software development process.
 - Learn how a program is executed in a computer environment.
 - Gain skills to create and develop your own programming portfolio.
- CPA: Programming Essentials in C++
 - Learn the syntax, semantics, and basic data type of C++.
 - Understand principles of the object-oriented model.
 - Implement and write in C++ and resolve typical implementation challenges via language libraries.
 - Prepare for the C++ Certified Associate Programmer Certification (CPA).
- CLA: Programming Essentials in C
 - Understand common computer programming concepts and write your own programs.
 - Learn the syntax, semantics and basic data types of C.
 - Apply programming skills using hands-on lab activities.
 - Prepare for the C Programming Language Certified Associate Certification (CLA).
- CPP: Advanced Programming in C++
 - Learn the C++ template mechanism and write your own C++ programs.
 - Understand and use elements of the C++ STL library.
 - Solve programming problems with STL-predefined classes and methods.
 - Prepare for the C++ Certified Professional Programmer Certification (CPP).
- CLP: Advance Programming in C
 - Grow your knowledge of the syntax and semantics of the C language.
 - Design and write C programs regardless of the hardware of software platform.
 - Identify code bugs and solve complex problems using data structures and algorithms.
 - Prepare for vendor-neutral C Certified Professional Programmer (CLP) Certification.

Data

- Introduction to Data Science
 - Experience Analytics
 - Data Collection and Storage
 - Artificial Intelligence and Machine Learning
 - Embarking on Your Career in Data Analytics