

Cisco Networking Academy[®]

Learning Portfolio Catalog



October 2019

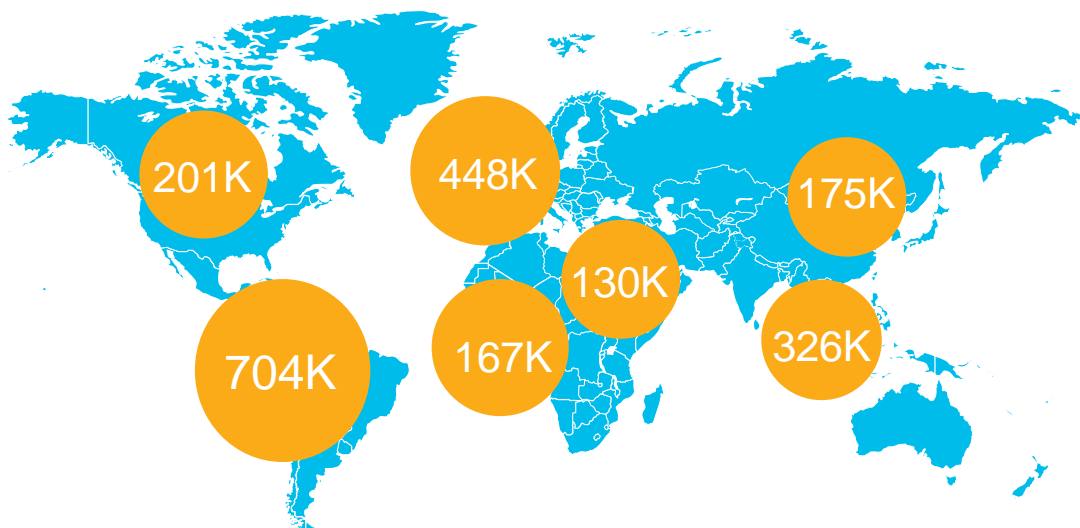


Cisco Networking Academy

Cisco Networking Academy is workforce development program for learning institutions and individuals worldwide.

More than 9.2 million people have joined the Networking Academy and become a force for change in the global economy since 1997.

Networking Academy is one of the pillars of Cisco’s Corporate Social Responsibility and delivers classroom instruction, online teaching materials, interactive tools, and hands-on learning to students from every socioeconomic background, so that they can develop the knowledge and skills required to succeed in a technology-driven market.



- 12,100 Academies
- 180 Countries
- 10.9M Students Served
- 26,500 Instructors

2.15M Currently Enrolled Globally

Preparing people for IT careers since 1997



① Skills-to-Jobs Learning Experience

What Students Learn

- Networking
- Security and Cybersecurity
- Programmable Infrastructure
- Programming
- Linux and General IT

How Students Learn

- Learning by doing
- Problem-solving
- Project-based learning
- Initiative and leadership
- Real-world experiences

How Students Think

- Customer-centric mindset
- Critical thinking
- Personal and social responsibility
- Business context



Focus on skill development, assessment, and practice



Curriculum for breadth & depth: T-Shaped professionals



Outcome Based Pedagogy Aligned to Industry Certification



Hands-On Activities and Simulation Tools



Courses in up to 25 Languages

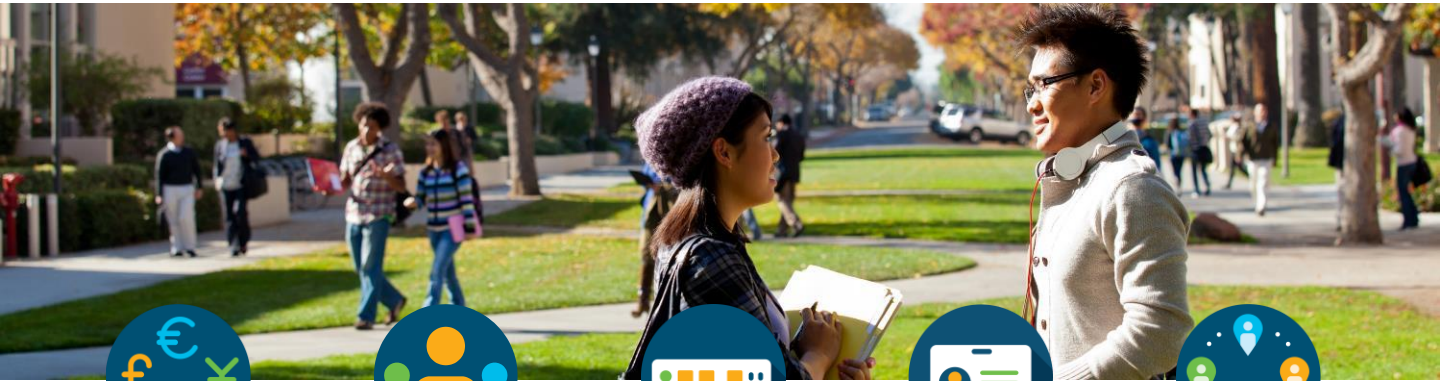


② Supportive Ecosystem

In support of the Skills-to-Jobs Learning experience is an unparalleled ecosystem which provides support to the educational institutions and their students. With a focus on corporate social responsibility, Cisco provides the curriculum, service and platform free of charge.

There are over 650 Academy Support Centers (ASCs) and Instructor Training Centers (ITCs) throughout the world that provide services to the member educational institutions. The program also offers discounts on certification exams and equipment necessary as part of the instructional space.

Global communities provide instructors and students with connections for greater success.



Free curriculum,
services, and
platform



Over 670
support
and training
partners



Certification and
equipment
discounts



Connect
to jobs
programs



Global
communities



③ Global Delivery Platform

NetAcad.com, the global delivery platform, supports the entire program throughout the world. The Cisco Networking Academy global delivery platform is available in seven languages with some courses translated into as many as eighteen languages.

One of the most powerful components of the platform is the custom assessment engine that provides detailed reports on a student's learning strengths and weaknesses with recommended course topics to help close the gaps.

The platform also delivers a world-class learning management environment which enables instructors to manage and customize their classroom and interactions with their students.



Scalable, Cloud-based



Available in English, Spanish, French, Arabic, Portuguese, Simplified Chinese, Russian



Custom Assessment Engine



Full-featured Learning Management System



Provides access to all curriculum and instructor resources



The Networking Academy Learning Portfolio

EXPLORE – provided to introduce learners to the exciting opportunities available in technology.

CAREER - the primary focus of the Academy is to help students prepare for careers.

Digital Essentials - help students build breadth independent of the specialization chosen

Networking- prepare students for the CCNA certification exam and for a career as a networking professional.

Programmable Infrastructure - prepares students to become network automation professionals.

These courses will prepare students for the forthcoming DevNet Associate certification.

Cybersecurity - prepares students to build secure networks, monitor the security of networks and defend the network from attacks. Students are prepared for the CCNA Security and CCNA CyberOps certification exams.

PRACTICE – opportunities to test and solidify learning including the popular Packet Tracer network simulation tool, gaming exercises within courses, prototyping and virtual labs, and physical equipment labs.

Explore

Introduction to exciting opportunities in technology.

- ▲ Get Connected
- ▲ Introduction to Packet Tracer
- ▲ NDG Linux Unhatched
- ▲ Cybersecurity Essentials
- ▲ Introduction to Cybersecurity
- ▲ Introduction to IoT
- Networking Essentials
- ▲ Entrepreneurship

Career

Preparation for entry level positions.

- Digital Essentials**
- ★ ■ IT Essentials
● ▲ NDG Linux Essentials
- ▲ **PCAP: Programming Essentials in Python**
■ Hackathon Playbook

Networking

- CCNA R&S:**
- ★ ● ■ Introduction to Networks
 - ★ ● ■ R&S Essentials
 - ★ ● ■ Scaling Networks
 - ★ ● ■ Connecting Networks
- CCNP R&S:**
- ★ ● ■ Switch
 - ★ ● ■ Route
 - ★ ● ■ TShoot

Programmable Infrastructure

- Emerging Tech Workshops:**
- Network Programmability
 - Experimenting with REST APIs
- IoT Fundamentals:**
- ★ ■ Connecting Things
 - ★ ■ Big Data & Analytics

Cybersecurity

- ★ ● ■ **CCNA Security**
 - ★ ● ■ **CCNA Cybersecurity Operations**
- IoT Fundamentals:**
- IoT Security

Practice

Increase mastery with hands-on tools & experiences

- Packet Tracer
- Gaming
- Prototyping Lab
- Virtual Labs
- Assessments
- Physical Equipment

Complementary Offerings

Additional offerings available from Partners.



- ▲ NDG Linux I
- ▲ NDG Linux II
- NDG NetLab+
- NDG CCNA CyberOps Lab



- CLA: Programming Essentials in C
- CLP: Advanced Programming in C
- CPA: Programming Essentials in C++
- CPP: Advanced Programming in C++



Cisco Networking Academy®



Networking Courses



Networking Essentials

Explore



Networking

Course Overview

Networking Essentials teaches networking based on environments students may encounter in their daily lives including small office and home office (SOHO) networking.

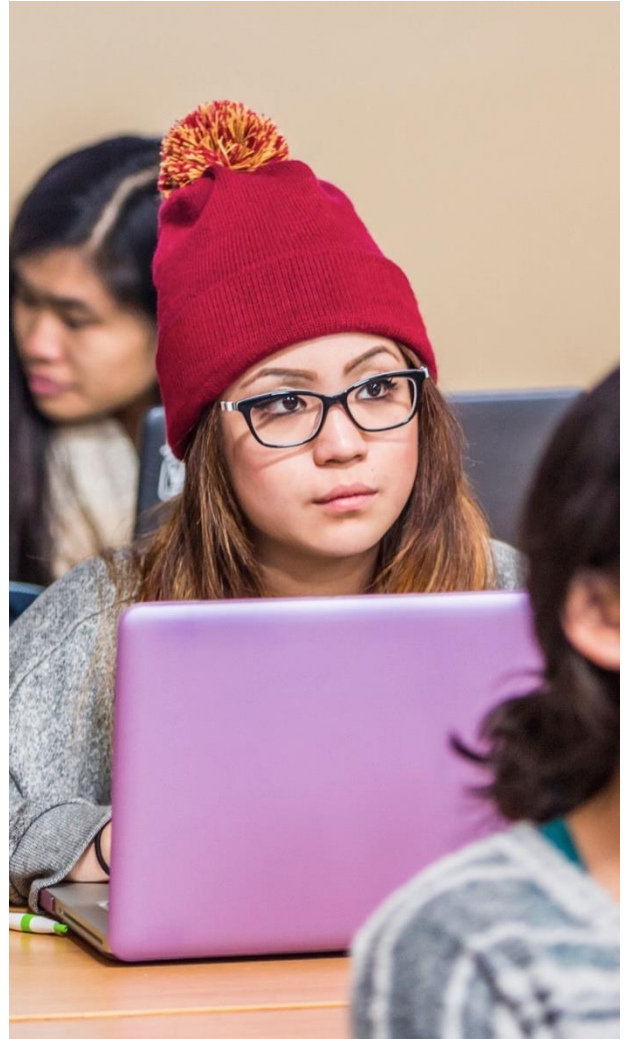
This course provides hands-on learning using real equipment and Packet Tracer simulation activities.

Benefits

This course teaches the skills needed to obtain entry-level SOHO network installer jobs. Networking Essentials prepares students for continuing with the CCNA R&S curriculum. Students studying other non-IT fields would also find this course a useful introduction to IT and networking.

Learning Components

- 9 chapters
- 21 hands-on labs
- 17 Cisco Packet Tracer activities
- 1 hands-on skills assessment
- 9 chapter exams, 1 checkpoint exam, 1 practice final exam, 1 final exam



Target Audience: Secondary and 2-year college vocational students, college and university students studying non-IT fields

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: Yes

Languages: Arabic, Chinese-S, English, French, German, Portuguese-BR, Russian, Spanish

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Introduction to Networks, Introduction to IoT

Network Programmability with Cisco APIC-EM

Career



Networking

Workshop Overview

The Network Programmability with Cisco APIC-EM workshop introduces you to the basic competencies to operate and automate management tasks on a controller-based network.

Benefits

In this workshop, students will learn and practice Python programming skills and tools, culminating in live interactions with the APIs on Cisco programmable controllers using the Cisco DevNet Sandbox.

Learning Components

- Understand the value, set-up and use of software concepts and tools relevant to network programmability (Python scripting, Git, JSON, Postman, APIs).
- Describe a different approach to software-defined networking (SDN), including central application policy control.
- Use the Cisco DevNet Sandbox to learn how to interact with programmable devices using real-world APIs on Cisco APIC-EM programmable controllers.
- Understand the value of joining professional communities of practice to working in the network programmability domain. Participate in Cisco DevNet, GitHub, and Stack Overflow.



Target Audience: Vocational, 2-year and 4-year College, 4-year University students

Prerequisites: Basic programming, CCENT level networking

ASC Alignment Required: No

Instructor Training: Required, self-paced option available



Languages: English

Course Delivery: Instructor-led

Equipment: FREE! Uses free online software tools

Estimated Time to Complete: 8 hours

Recommended Insertion Points: After CCNA R&S course 2, with CCNA Security or CCNP R&S

CCNA R&S: Introduction to Networks

Career



Networking

Course Overview

The first course in the Cisco CCNA Routing and Switching curriculum teaches students about the architecture, structure, functions and components of the Internet and other computer networks.

Students achieve a basic understanding of how networks operate.

Benefits

By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP.

Learning Components

- 11 chapters
- 36 hands-on labs and 1 hands-on skills assessment
- Pre-test, 11 chapter quizzes, 1 sectional quizzes, 11 chapter exams, and 1 final exam
- 2 Cisco Packet Tracer skills-based assessments



Target Audience: Secondary vocational students, 2-year and 4-year college students in Networking or Engineering programs

Prerequisites: None

ASC Alignment Required: Yes

Instructor Training Required: Yes

Languages: Arabic, Chinese-S, Chinese-T, Croatian, English, French, Georgian, German, Hebrew, Hungarian, Italian, Japanese, Polish, Portuguese-BR, Romanian, Russian, Spanish, Turkish

Course Delivery: Instructor-led

Equipment: FREE! Uses free online software tools

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Routing and Switching Essentials



Certification
Aligned



CCNA R&S: Routing & Switching Essentials

Career



Networking

Course Overview

The second course in the CCNA Routing and Switching curriculum describes the architecture, components, and operations of routers and switches in a small network.

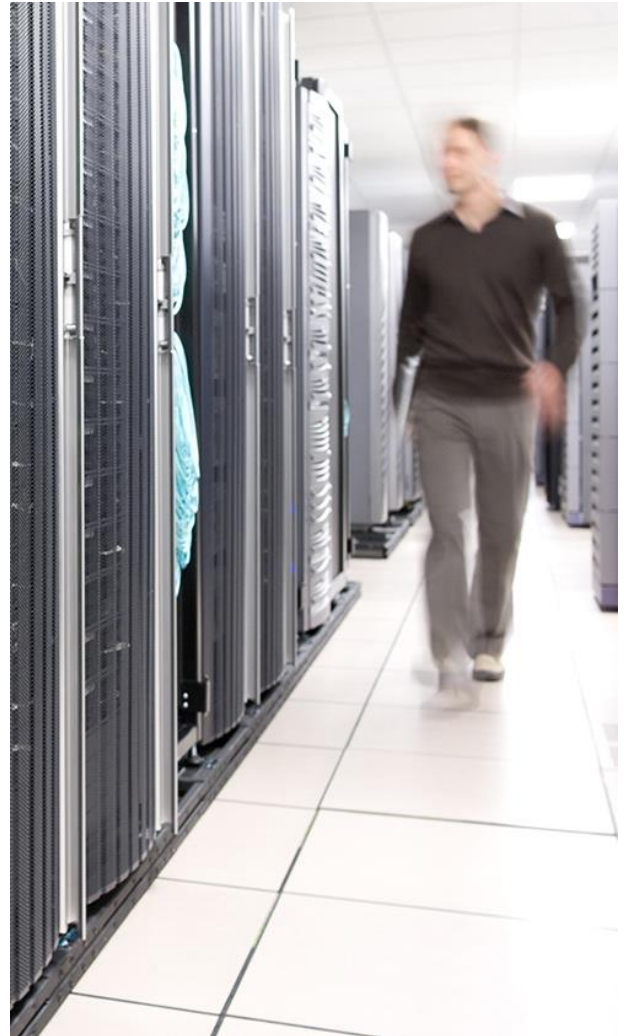
Students learn how to configure a router and a switch for basic functionality.

Benefits

Students are ready to prepare for CCENT certification, skilled to apply for entry-level network technician jobs and able to move on to advanced certifications.

Learning Components

- 10 chapters
- 29 hands-on labs and 1 hands-on skills assessment
- Pre-test, 10 chapter quizzes, 10 chapter exams, and 1 final exam
- 2 Cisco Packet Tracer skills-based assessments



Target Audience: Secondary vocational students, 2-year and 4-year college students in Networking or Engineering

Prerequisites: CCNA R&S: Introduction to Networks

ASC Alignment Required: Yes

Instructor Training Required: Yes



Certification
Aligned

Languages: Arabic, Chinese-S, Chinese-T, Croatian, English, French, Georgian, German, Hebrew, Hungarian, Japanese, Polish, Portuguese-BR, Romanian, Russian, Spanish, Turkish

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Scaling Networks or CCNA Security



CCNA R&S: Scaling Networks

Career

Course Overview

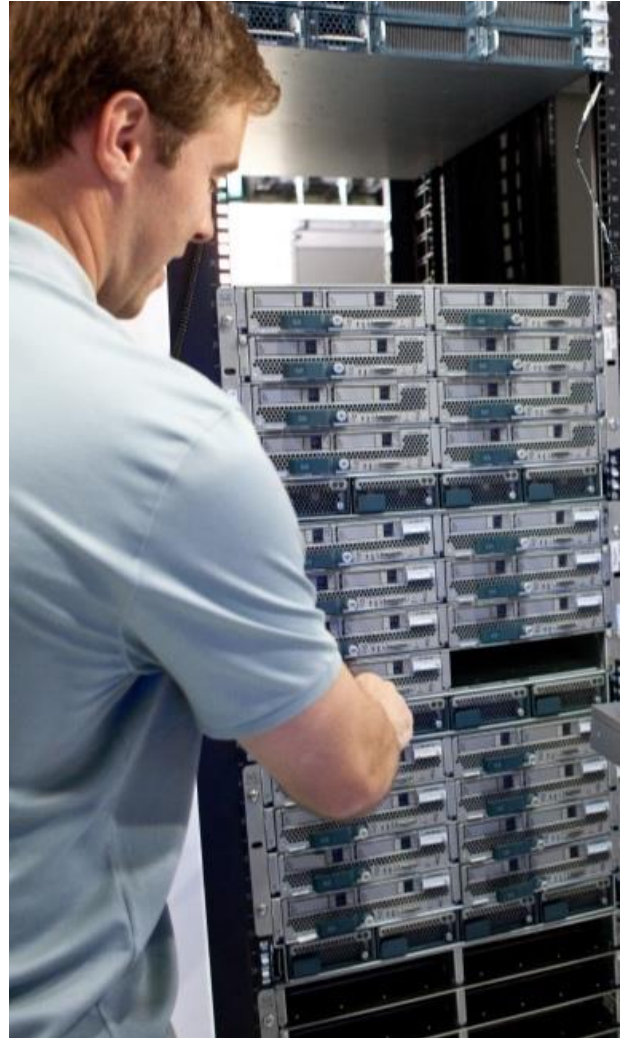
The third course in the CCNA Routing and Switching curriculum describes the architecture, components, and operations of routers and switches in large, complex networks.

Benefits

Students learn how to configure and troubleshoot routers and switches for advanced functionality and resolve common issues with protocols in both IPv4 and IPv6 networks.

Learning Components

- 11 chapters
- 33 hands-on labs and 1 hands-on skills assessment
- Pre-test, 11 chapter quizzes, 2 sectional quizzes, 11 chapter exams, and 1 final exam
- 2 Cisco Packet Tracer skills-based assessments



Target Audience: 2-year and 4-year college students in Networking or Engineering programs

Prerequisites: CCNA R&S: R&S Essentials

Instructor Training Required: Yes

ASC Alignment Required: Yes

Languages: Arabic, Chinese-S, Croatian, English, French, Hungarian, Japanese, Polish, Portuguese-BR, Russian, Spanish, Turkish

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Connecting Networks



Certification Aligned

CCNA R&S: Connecting Networks

Career



Networking

Course Overview

The fourth and final course in the CCNA Routing and Switching curriculum covers the WAN technologies and network services employed by converged applications in a complex network.

Benefits

By the end of the course, students learn how to configure and troubleshoot network devices and implement virtual private networks and are ready to prepare for the CCNA R&S certification.

Learning Components

- 9 chapters
- 12 hands-on labs and 1 hands-on skills assessment
- Pre-test, 9 chapter quizzes, 2 sectional quizzes, 9 chapter exams, and 1 final exam
- 2 Cisco Packet Tracer skills-based assessments



Target Audience: 2-year and 4-year college students in Networking or Engineering

Prerequisites: CCNA R&S: Scaling Networks

ASC Alignment Required: Yes

Instructor Training Required: Yes

Languages: Arabic, Chinese-S, Croatian, English, French, Hungarian, Japanese, Polish, Portuguese-BR, Russian, Spanish, Turkish

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA Security or CCNP R&S ROUTE



Certification
Aligned



CCNP Routing and Switching Curriculum

Career



Networking

Curriculum Overview

The three CCNP Routing and Switching courses provide a comprehensive overview of enterprise-level networking concepts, including advanced routing, switching, and troubleshooting.

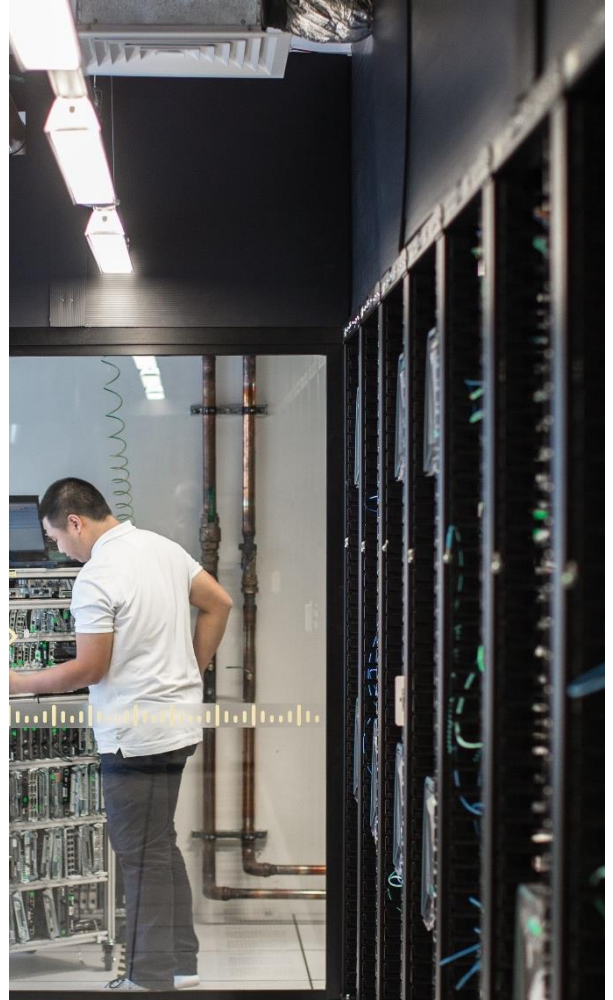
The curriculum integrates industry-relevant instructional approaches to help students prepare for career opportunities.

Benefits

College students seeking hands-on practical experience, Cisco CCNP R&S certification, and career skills in advanced routing, switching, and troubleshooting.

Learning Components

- 3 courses: CCNP R&S ROUTE: Implementing IP Routing, CCNP R&S SWITCH: Implementing IP Switched Networks, and CCNP R&S TSHOOT: Troubleshooting and Maintaining IP Networks
- Hands-on labs
- Cisco Press textbooks
- Chapter exams and final exams



Target Audience: 4-year college students in Networking or Engineering programs

Prerequisites: CCNA R&S courses 1-4

ASC Alignment Required: Yes

Instructor Training Required: Yes

Languages: English

Course Delivery: Instructor-led, textbook-based

Estimated Time to Complete: 210 hours



Certification
Aligned



Cisco Networking Academy®



Security Courses

Introduction to Cybersecurity

Explore



Course Overview

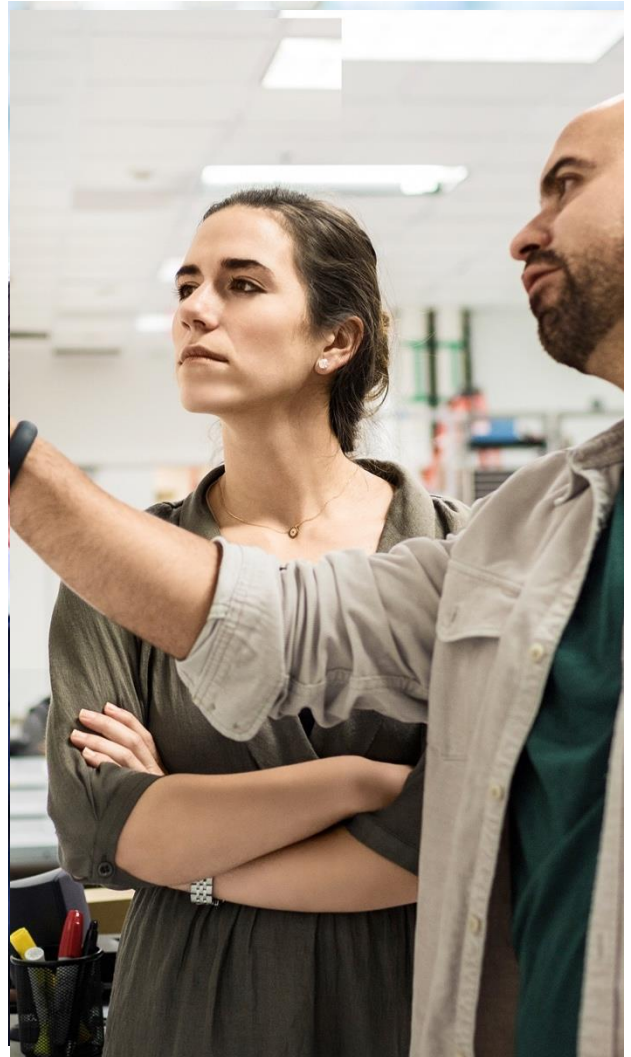
The Introduction to Cybersecurity course explores cyber trends, threats and staying safe in cyberspace, and protecting personal and company data.

Benefits

Learn how to protect your personal data and privacy online and in social media, and why more and more IT jobs require cybersecurity awareness and understanding.

Learning Components

- 5 modules
- Interactive and instructional content
- 8 Activities and 7 lab exercises that reinforce learning
- 4 quizzes and 1 final exam
- Links to related resources



Target Audience: Secondary and 2-Year college students, general audience

Prerequisites: None

Instructor Training Required: No

ASC Alignment Required: No

Languages: Arabic, Chinese-S, Dutch, English, French, German, Hebrew, Indonesian, Italian, Japanese, Kazakh, Polish, Portuguese, Russian, Spanish, Ukrainian

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 15 hours

Cybersecurity Essentials

Explore



Course Overview

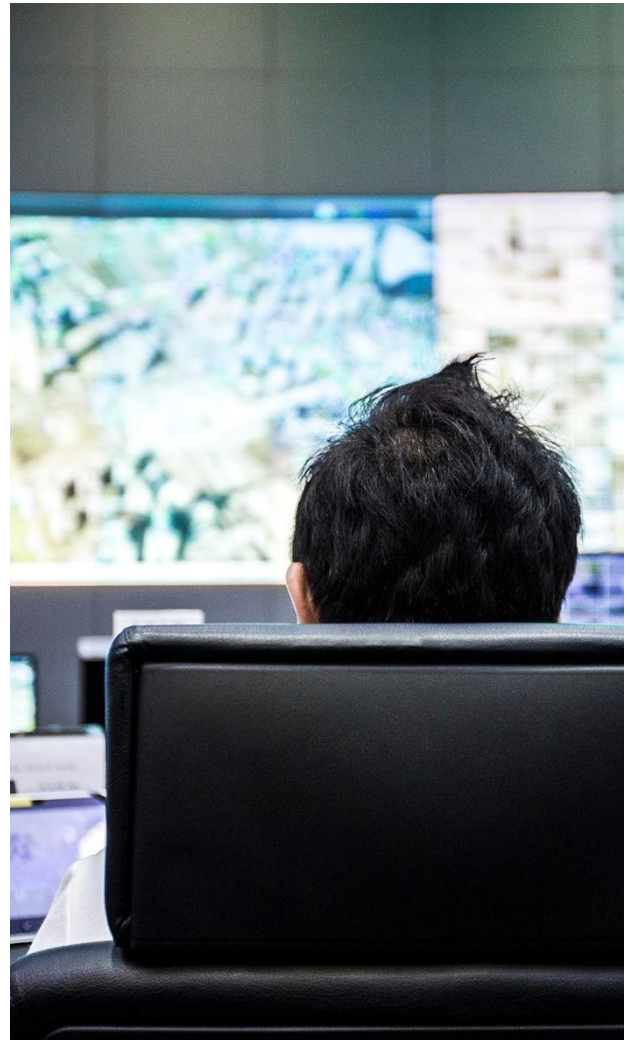
Cybersecurity Essentials covers foundational knowledge and essential skills for all cybersecurity domains including information security, systems security, network security, ethics and laws, and defense and mitigation techniques used in protecting businesses.

Benefits

This course is recommended for students planning to study any CCNA certification. It provides foundational security skills for entry-level networking and security roles.

Learning Components

- 8 chapters learning
- 34 interactive activities, 10 Cisco Packet Tracer Activities, 12 hands-on labs that reinforce
 - 8 chapter quizzes, 1 final exam
 - Links to related resources



Target Audience: Secondary and 2-year college vocational students

Prerequisites: Introduction to Cybersecurity

ASC Alignment Required: No

Instructor Training Required: No

Languages: Chinese-S, English, French, German, Japanese, Portuguese-Br, Russian, Spanish, Ukrainian

Course Delivery: Instructor-led and Self-paced

Estimated Time to Complete: 30 hours

Recommended Next Course: CCNA R&S
Introduction to Networks and CCNA
Cybersecurity Operations



CCNA Cybersecurity Operations

Career



Security

Course Overview

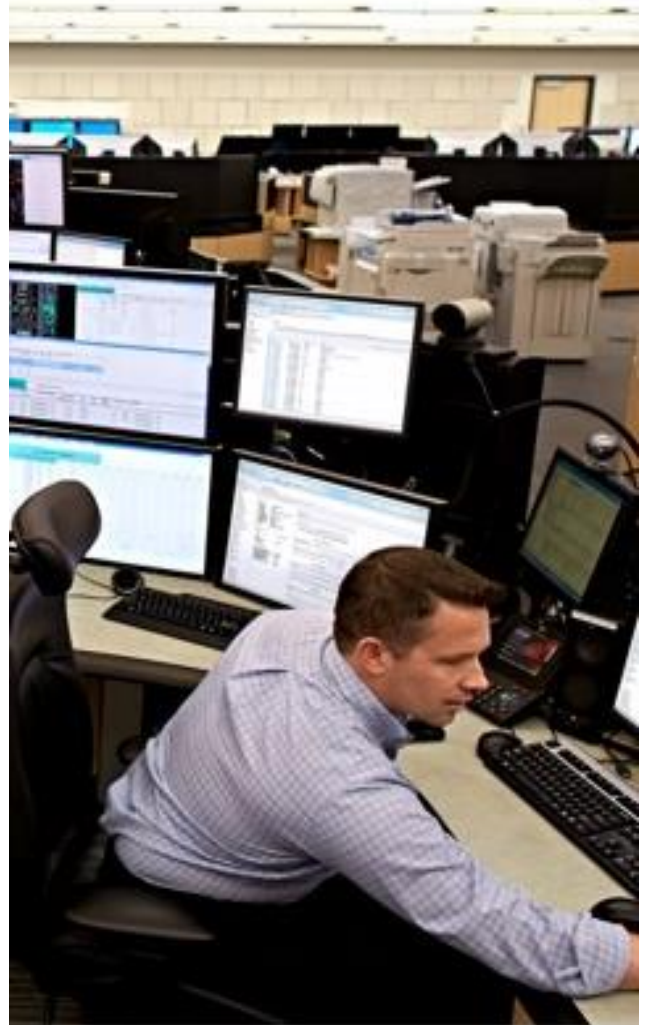
Introduces the core security concepts and skills needed to monitor, detect, analyze and respond to cybercrime, cyberespionage, insider threats, advanced persistent threats, regulatory requirements, and other cybersecurity issues facing organizations. It emphasizes the practical application of the skills needed to maintain and ensure security operational readiness of secure networked systems.

Benefits

The skills developed in the curriculum prepares students for a career in the rapidly growing area of cybersecurity operations working in or with a security operations center (SOC) in entry-level job roles.

Learning Components

- 13 chapters of interactive content, quizzes, and chapter exams
- Labs, and hands-on labs using virtual machine environment (PC required)
- Cisco® Packet Tracer activities
- Certification practice exams, practice final, final exam and skills-based assessment



Target Audience: Students enrolled in technology degree programs at institutions of higher education and IT professionals who wants to pursue a career in Security Operations.

Prerequisites: None

ASC Alignment Required: Yes

Instructor Training Required: Yes

Languages: Chinese-S, English, French, Japanese, Russian, Spanish

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours



Certification
Aligned

CCNA Security

Career



Course Overview

CCNA Security introduces the core security concepts and skills needed to troubleshoot and monitor computer networks and help ensure the integrity of devices and data.

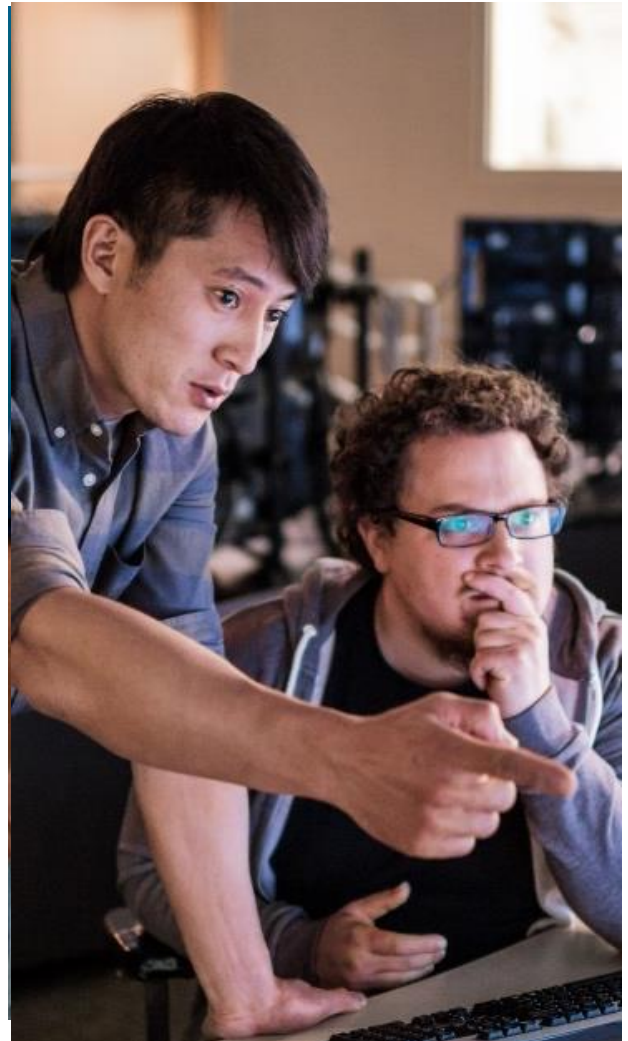
It emphasizes the practical application of the skills needed to design, implement, and manage network security systems.

Benefits

CCNA R&S students interested building security and data protection expertise for the Cisco CCNA Security career certification and jobs as network security specialists.

Learning Components

- 11 chapters, quizzes, and chapter exams
- 13 Cisco Packet Tracer activities and 1 Packet Tracer practice skills-based assessment
- 16 hands-on labs
- One each: pre-test, certification practice exam, practice final, final exam and Skills-Based Assessment (SBA)



Target Audience: 2-year and 4-year college students in Networking or Engineering programs

Prerequisites: CCNA R&S: ITN and RSE (CCENT)

ASC Alignment Required: Yes

Instructor Training Required: Yes

Languages: English, Chinese-S, Russian

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNP R&S ROUTE



Certification
Aligned



Cisco Networking Academy®



Internet of Things Courses

Introduction to IoT

Explore



IoT

Course Overview

Students learn about the Internet of Things and how it enables the Digital Transformation along with emerging technologies such as data analytics, artificial intelligence and the increased attention to cybersecurity. The course also introduces the importance of the new Intent Based Networking that uses a software-driven approach and machine learning to be able to connect and secure tens of billions of new devices with ease.

Benefits

Student will have a comprehensive view of how these emerging technologies are shaping the digital business. They also have the opportunity to explore career opportunities in this new landscape.

Learning Components

- Explain the meaning and impact of Digital Transformation.
- Apply basic programming to support IoT devices.
- Explain how data provides value to Digital Business and Society.
- Explain the benefits of automation in the digitized world.
- Explain the need for enhanced security in the digitized world.
- Discover opportunities provided by digital transformation.



Target Audience: General audience

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: No

Languages: English, Arabic, Chinese-S, Chinese-T, Dutch, English, French, German, Hebrew, Italian, Japanese, Kazakh, Korean, Polish, Portuguese-BR, Russian, Spanish, Ukrainian

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 20 hours

Recommended Next Course: A great start for any learning path, and way to introduce the digital transformation before or during any Foundational or Career Ready course.

Certifications: N/A

Connecting Things

Career



IoT

Course Overview

In Connecting Things, students learn how digitalization is transforming industries such as manufacturing, energy, and smart cars. Using a hands-on approach, they securely interconnect sensors, actuators, microcontrollers, single-board computers, and cloud services over IP networks to create an end-to-end IoT system.

Benefits

Students will develop interdisciplinary skillsets required to prototype an IoT solution for a specific business case with a focus on the security considerations for emerging technologies.

Learning Components

- 6 chapters
- 31 hands-on labs
- 10 Cisco Packet Tracer activities
- 12 interactive activities
- 6 chapter exams, 1 final exam



Target Audience: Secondary, Vocational, 2-year and 4-year College, 4-Year University students

Prerequisites: Basic programming, networking and electronics

ASC Alignment Required: Yes

Instructor Training Required: Yes

Languages: Chinese-S, English, French, German, Spanish

Course Delivery: Instructor-led

Estimated Time to Complete: 50 hours

Recommended Next Course: IoT Fundamentals: IoT Security, Big Data & Analytics or Hackathon Playbook

IoT Security

Career



IoT

Course Overview

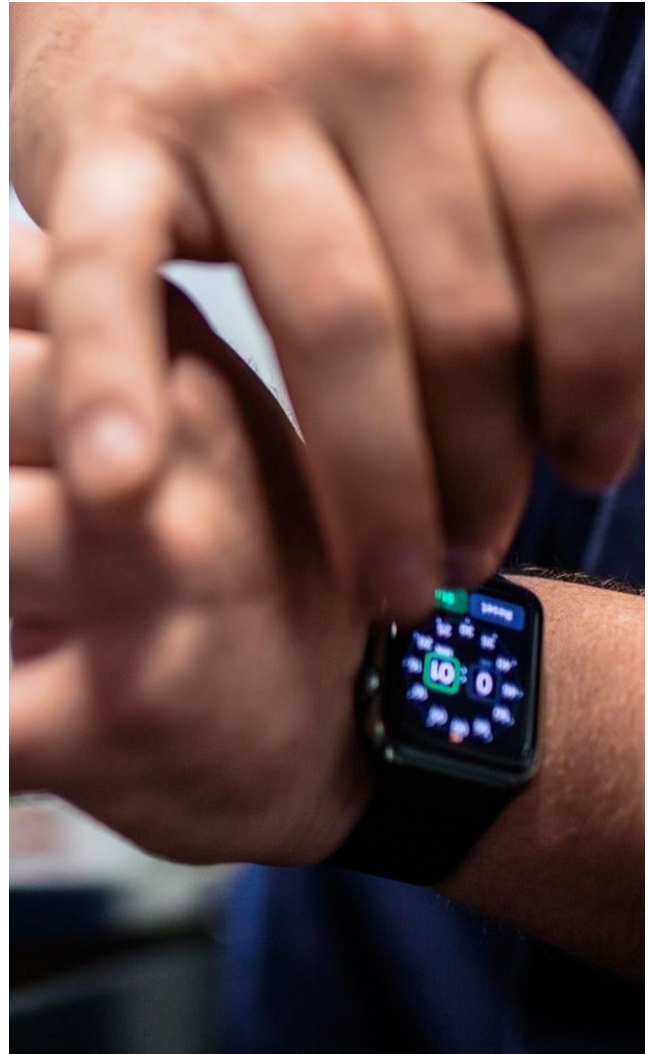
The explosive growth of connected IoT devices enables the digitization of industries, but also increases the exposure to security threats. Upon completion students will be able to perform vulnerability and risk assessments, and research and recommend risk mitigation strategies for common security threats in IoT systems.

Benefits

Students seeking a career in the rapidly growing IoT and security domains will learn practical tools for evaluating security vulnerabilities in IoT solutions, perform threat modeling, and use risk management frameworks to recommend threat mitigation measures. These skills are relevant across IoT and other network architectures.

Learning Components

- Conduct end-to-end threat modeling and evaluate security risks within IoT solutions
- Discover and demonstrate a vulnerability using real-world penetration testing tools such as Kali Linux
- Gain hands-on experience with IoT Prototypes using a Raspberry Pi
- Increase awareness of emerging technologies used in the IoT Security space, such as Blockchain



Target Audience: Vocational, 2-year and 4-year College, 4-Year University students

Prerequisites: IoT Fundamentals: Connecting Things course, Networking and security knowledge equivalent of Networking Essentials and Cybersecurity Essentials

ASC Alignment Required: Yes

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 50 hours

Big Data & Analytics

Career



IoT

Course Overview

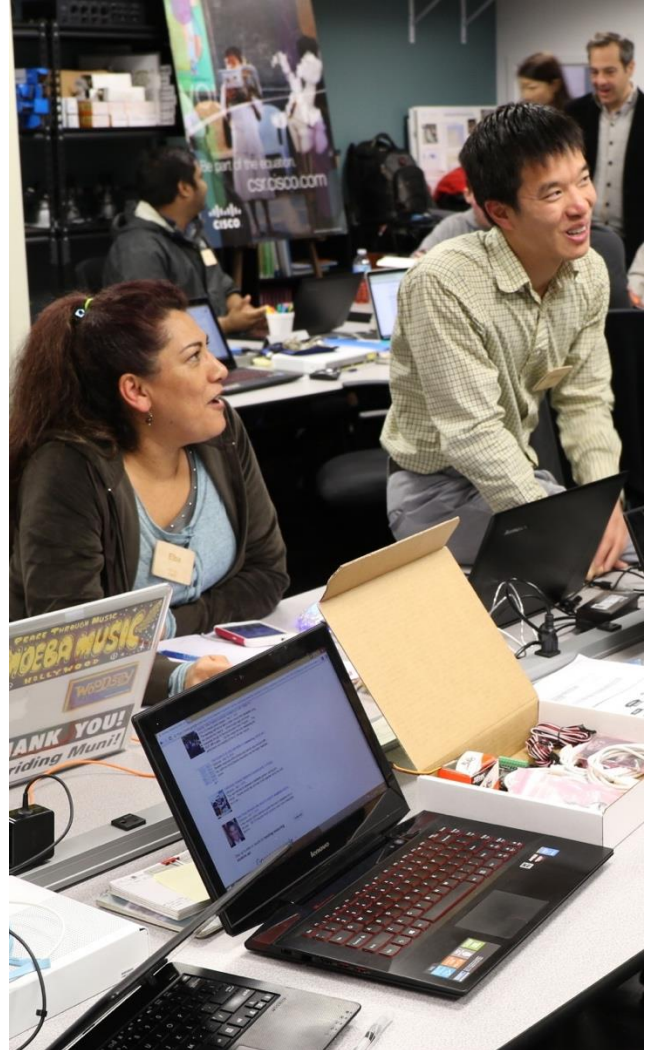
Students will learn how to use Python data libraries to create a pipeline to acquire, transform and visualize data collected from IoT sensors and machines. .

Benefits

The transformative element of any IoT system is the data that can be collected from it. Thus the ability to extract data and using data analytics techniques to gain insights increases employability.

Learning Components

- Use Python to read data from sensors and store data in a SQL data base.
- Use Python Data Analysis library to clean, manipulate, integrate data sets.
- Use Python Visualization Libraries to visualize real-time data end explore acquired data sets.
- Explain the fundamental principles of a modern scalable Big Data platforms like Hadoop.
- Use storytelling to present the insights gained from extracted data.



Target Audience: 2-year and 4-year College, 4-Year University students

Prerequisites: IoT Fundamentals: Connecting Things and IoT Security (optional)

ASC Alignment Required: Yes

Instructor Training Required: Yes

Languages: Chinese-S, English, French, Spanish

Course Delivery: Instructor-led

Estimated Time to Complete: 50 hours

Recommended Next Course: IoT Fundamentals: Hackathon Playbook

Hackathon Playbook

Career

Course Overview

The Hackathon Playbook is a comprehensive framework of tools and templates equipping instructors to prepare and run a hackathon. It is based on best practices and lessons-learned compiled from the global IoT Hackathons within Networking Academy and by other organizers.

Benefits

Students reinforce and deepen their multidisciplinary IoT and data skills by defining, designing, prototyping and presenting an IoT solution to a panel of industry experts and peers.

Learning Components

- 1 instructor-only module
- 2 student modules
- Design Thinking Preparation Labs (optional)
- Student Facilitation module
- 2 Quizzes, 1 each for Instructor and Students
- Final exam: Submission of the Prototype Documentation



Target Audience: Secondary, Vocational, 2-year and 4-year College, 4-Year University students

Prerequisites: Connecting Things, IoT Security (optional) and Big Data & Analytics (optional)

ASC Alignment Required: No

Instructor Training Required: No

Languages: English, Spanish

Course Delivery: Instructor-led, Instructor-facilitated

Estimated Time to Complete: 24-30 hours

Recommended Next Course: IoT Fundamentals Big Data & Analytics, any Career-Ready course



Cisco Networking Academy®



OS & IT Courses

NDG Linux Unhatched

Explore



OS & IT

Course Overview

Aligned to the Linux exam objectives found on the CompTIA A+ 220-902 exam, this course teaches basic installation and configuration of Linux software and introduces the Linux command line.

Benefits

NDG Linux Unhatched eases learners into acquiring Linux knowledge with a free online learning course.

Learning Components

- 1 Module
- 20 Pages
- Built-in Linux machine with activities
- 1 Assessment



Target Audience: Secondary and general audience new to IT

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: No

Course Delivery: Self-paced

Languages: English, Spanish

Estimated Time to Complete: 6-8 hours

Recommended Next Course: NDG Linux Essentials

IT Essentials 7

Career



OS & IT

Course Overview

IT Essentials covers fundamental computer and career skills for entry-level IT jobs. Students apply skills and procedures to install, configure, and troubleshoot computers, mobile devices, and software.

Benefits

For students seeking career-oriented, entry-level hardware and software skills to prepare for technical support roles, this course aligns with the CompTIA A+ certification.

This course also serves as a foundation for CCNA-level courses.

Learning Components

- 14 chapters
- 83 hands-on labs and 128 interactive activities
- 75 videos
- 6 Cisco Packet Tracer activities
- 14 chapter exams, 2 checkpoint exams, 2 skills review exams, 2 practice final exams, 3 final exams, 2 skills-based assessment, 7 practice exams for CompTIA A+ certification



Target Audience: Secondary and 2-year college vocational students

Prerequisites: None

ASC Alignment Required: Yes

Instructor Training Required: Yes

Languages: Arabic, Chinese-S, Chinese-T, Croatian, Dutch, English, French, Georgian, German, Hebrew, Hungarian, Italian, Japanese, Kazakh, Polish, Portuguese-BR, Romanian, Russian, Spanish, Turkish, Ukrainian

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Introduction to Networks



Certification
Aligned



NDG Linux Essentials

Career



OS & IT

Course Overview

The NDG Linux Essentials course, developed by Networking Academy partner NDG, teaches the fundamentals of the Linux operating system and command line and open source concepts.

The Linux virtual machine is embedded in the course; allowing students to experiment with Linux commands.

Benefits

Learn Linux OS, open source programming, and IoE skills to expand IT knowledge beyond networking. Aligns with the Linux Professional Institute (LPI) Linux Essentials Professional Development Certificate.

Learning Components

- 16 chapters
- Built-in virtual machine to experiment with Linux commands
- 13 lab exercises
- Learner-directed activities
- Chapter exams, mid-term, and final exam



Target Audience: Secondary and 2-year college students

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: No

Languages: English, Spanish

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Introduction to Networks



Certification Aligned



NDG Linux

Complementary Offering



OS & IT

Curriculum Overview

The NDG Linux curriculum, developed by Networking Academy partner NDG, is a 2-course series for aspiring Linux system administrators.

Students develop proficiency in performing maintenance tasks on the command line, installing and configuring a computer running Linux, and configuring basic networking, using virtual machines running Linux.

Benefits

NDG Linux curriculum prepares you for careers in cloud computing, cybersecurity, information systems, networking, programming, software development, big data, and more.

Learning Components

- 2 semester -long courses: NDG Linux I, NDG Linux II
- More rigorous than Linux Essentials
- Built-in virtual machine to experiment with Linux commands
- Hands-on labs and activities
- Chapter, midterm and final exams



Target Audience: 2-year and 4-year college students

Prerequisites: None, but NDG Linux Essentials or equivalent knowledge recommended

ASC Alignment Required: No

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led and Self-paced

Fee: \$29.95 US per learner, per course

Estimated Time to Complete: 70 hours per course, 140 hours total



Certification Aligned



Cisco Networking Academy®



Programming Courses



CPA: Programming Essentials in C++

Complementary Offering



Programming

Course Overview

Prepares student to accomplish coding tasks related to the basics of programming in the C++ language and the fundamental notions and techniques used in object-oriented programming.

Benefits

Builds the skills you need for entry-level programming career opportunities and to succeed in jobs related to software development, network engineering and system administration. Aligns with CPA – C++ Certified Associate Programmer Certification.

Learning Components

- 8 modules of interactive instructional content
- More than 100 practice labs
- Chapter and Final exams



Target Audience: Secondary, 2-year and 4-year college students

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: IoT Fundamentals, CCNA R&S, NDG Linux Essentials



Certification Aligned



CLA: Programming Essentials in C

Complementary Offering



Programming

Course Overview

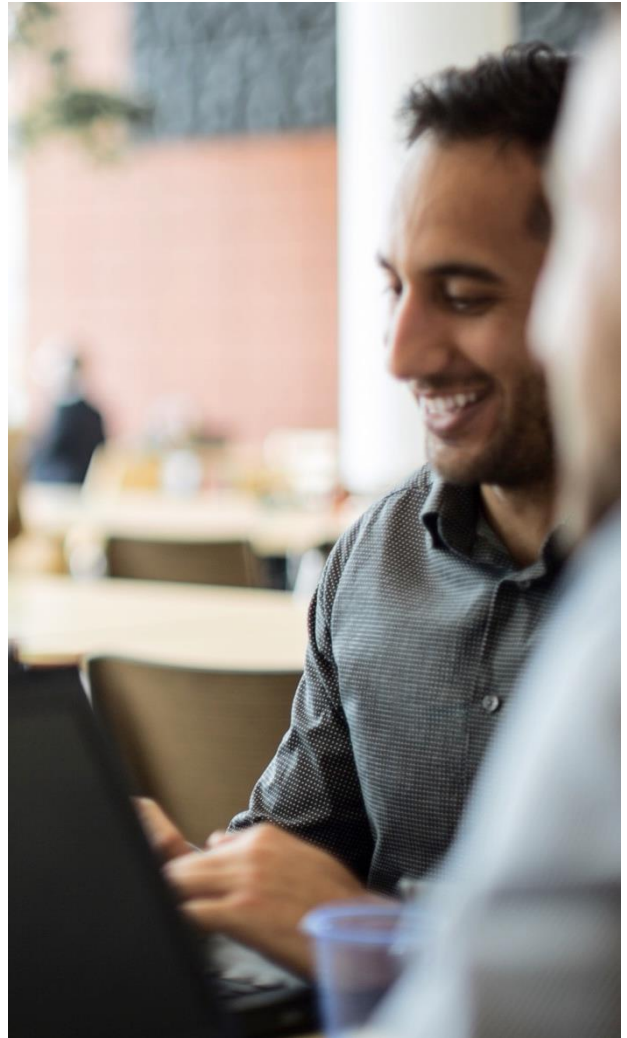
The CLA: Programming Essentials in C curriculum is designed for students who want to learn the fundamentals of programming through the C language.

Benefits

Learn the universal concepts of computer programming, as well as the syntax, semantics and data types of the C language needed for entry-level programming career opportunities. Aligns with CLA – C Programming Language Certified Associate Certification.

Learning Components

- 9 modules of interactive instructional content
- More than 80 practice labs
- Chapter and Final exams



Target Audience: Secondary, 2-year and 4-year college students

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: IoT Fundamentals, CCNA R&S, NDG Linux Essentials



Certification Aligned



PCAP: Programming Essentials in Python

Career



Programming

Course Overview

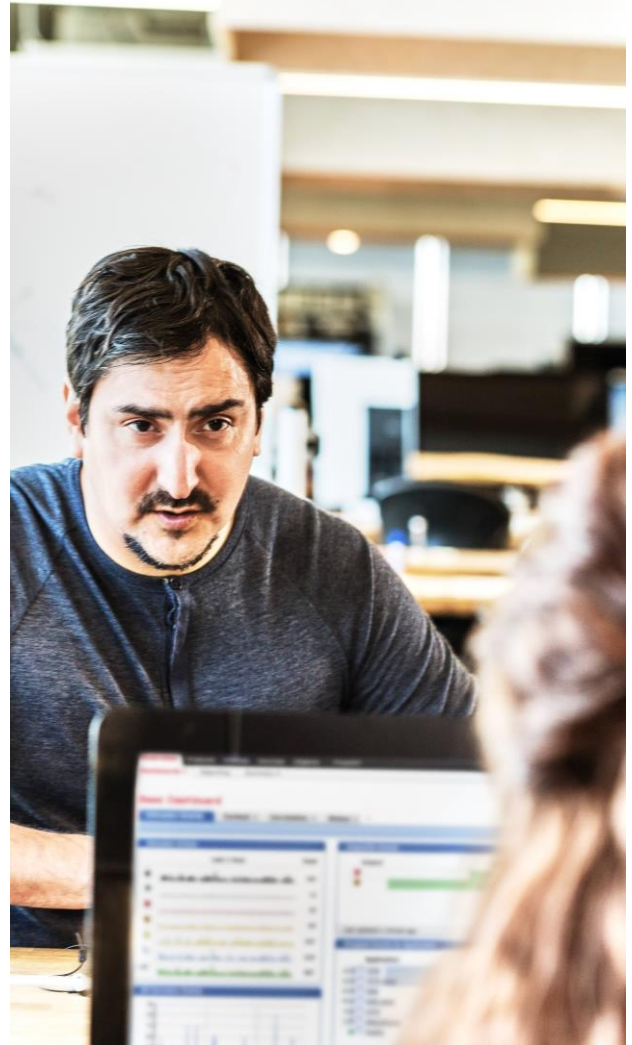
Designed as easy to understand and beginner-friendly course focusing on various data collections, manipulation tools, logic and bit operations and creating basic REST APIs

Benefits

With PCAP: Programming Essentials in Python you learn to design, write, debug, and run programs encoded in the Python language. No prior programming knowledge is required. The course begins with the very basics guiding you step by step until you become adept at solving more complex problems.

Learning Components

- 5 modules of interactive instructional content
- More than 30 practice labs
- Built-in online tool to perform labs and practice
- Chapter and Final exams



Target Audience: High-school and college students

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: No

Languages: English and Polish

Course Delivery: Instructor-led or self-paced

Estimated Time to Complete: 60-70 hours

Recommended Next Course: IoT Fundamentals, Networking Essentials, NDG Linux Essentials



Certification Aligned

Experimenting with REST APIs using WebEx Teams

Career



Programming

Workshop Overview

The Experimenting with REST APIs using WebEx Teams workshop introduces you to the basic competencies needed to create applications and automate tasks using REST APIs, the most popular architecture for software integration in IT.

Benefits

In one day students will learn and practice Python programming skills and tools, culminating in live interactions with the APIs on Cisco collaboration software using the WebEx Teams online platform.

Learning Components

- Understand value, set-up and use the most prevalent software language (Python) and tools for network programmability (JSON, Postman).
- Understand the importance of participating in professional communities of practice when doing work in the software domain.
- Join and engage in 3 professional communities of practice: GitHub, Stack Overflow and Cisco DevNet.
- Describe the relevance of REST APIs architecture and perform basic software integration and automation using real-world APIs on an enterprise collaboration platform (WebEx Teams).



Target Audience: Vocational, 2-year and 4-year College, 4-Year University students

Prerequisites: Basic programming

ASC Alignment Required: No

Instructor Training Required: Required, self-paced options available

Languages: English

Course Delivery: Instructor-led

Equipment: FREE! Uses free online software tools

Estimated Time to Complete: 8 hours

Recommended Insertion Points: PCAP Programming Essentials in Python, Connecting Things

Other Insertion Points: IT Essentials, CCNA R&S ITN



CPP: Advanced Programming in C++

Complementary Offering



Programming

Curriculum Overview

Prepares students to accomplish coding tasks such as C++ template mechanism, understanding and using property template classes and methods, and the C++ STL library including solving common programming problems and the IO part.

Benefits

Builds the skills needed for programming career opportunities and success in jobs related to software development, network, engineering and system administration. Aligns with CPP-C++ Certified Professional Programmer Certification.

Learning Components

- 9 modules of interactive instructional content
- 65 practice labs
- Chapter and Final Exams



Target Audience: 2-year and 4-year college and university students

Prerequisites: CPA – Programming Essentials in C++ course, certification or equivalent

ASC Alignment Required: No

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNP R&S, NDG Linux I



Certification Aligned



CLP: Advanced Programming in C

Complementary Offering



Programming

Curriculum Overview

Prepares students to accomplish intermediate to advanced coding tasks such as C handling variable number of parameters (<stdarg.h>), low level IO (<unistd.h>), memory and strings (<string.h> et al.), processes and threads, floats and ints once again (<math.h>, <fenv.h>, <inttypes.h> et al.) and network sockets.

Benefits

When you learn C programming, you develop the overarching fundamentals for all programming languages. You learn to think harder and deeper about programming concepts. Aligns with CLP – C Certified Professional Programmer Certification.

Learning Components

- 8 modules of interactive instructional content
- 18 practice labs
- Quizzes, Chapter and Final Exams



Target Audience: 2-year and 4-year college and university students

Prerequisites: CLA – Programming Essentials in C course, CLA certification or equivalent C knowledge

ASC Alignment Required: No

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNP R&S, NDG Linux I



Certification Aligned



Cisco Networking Academy®



Business Courses

Be Your Own Boss

Explore



Business

Course Overview

The Be Your Own Boss or Technopreneur series provides the guidelines, insights, and advice needed to launch successful tech ventures.

The series features video presentations by entrepreneurs from around the world who share lessons learned along their journeys to success.

Benefits

Technology students interested in developing the entrepreneurial skills and habits needed to launch and grow a successful technology business.

Learning Components

- 8 modules in video format
- Technopreneurs sharing personal success stories
- Quizzes and surveys for each module



Target Audience: General audience

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 8 hours

Recommended Next Course: Entrepreneurship

Entrepreneurship

Explore



Business

Course Overview

Entrepreneurship supplements the IT skills gained in CCNA R&S curriculum by teaching business and financial skills, behaviors, and attitudes, to help students develop an entrepreneurial mindset.

Students learn by completing a series of interactive case studies.

Benefits

Students seeking to supplement IT expertise with entrepreneurial thinking, business development, and financial management skills.

Learning Components

- 7 modules
- Modules feature interactive case studies and videos that reinforce business management skills
- Quizzes for each module
- Discussion board



Target Audience: General audience

Prerequisites: None, recommend CCNA R&S RSE for labs

ASC Alignment Required: No

Instructor Training Required: No

Languages: Arabic, Chinese-S, Chinese-T, English, French, Hebrew, Italian, Portuguese-BR and Spanish

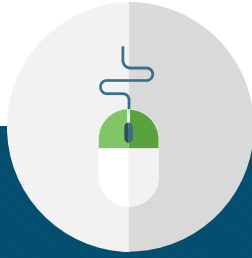
Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 15 hours

Complementary Course: Be Your Own Boss



Cisco Networking Academy®



Digital Literacy Courses

Get Connected

Explore



Digital Literacy

Course Overview

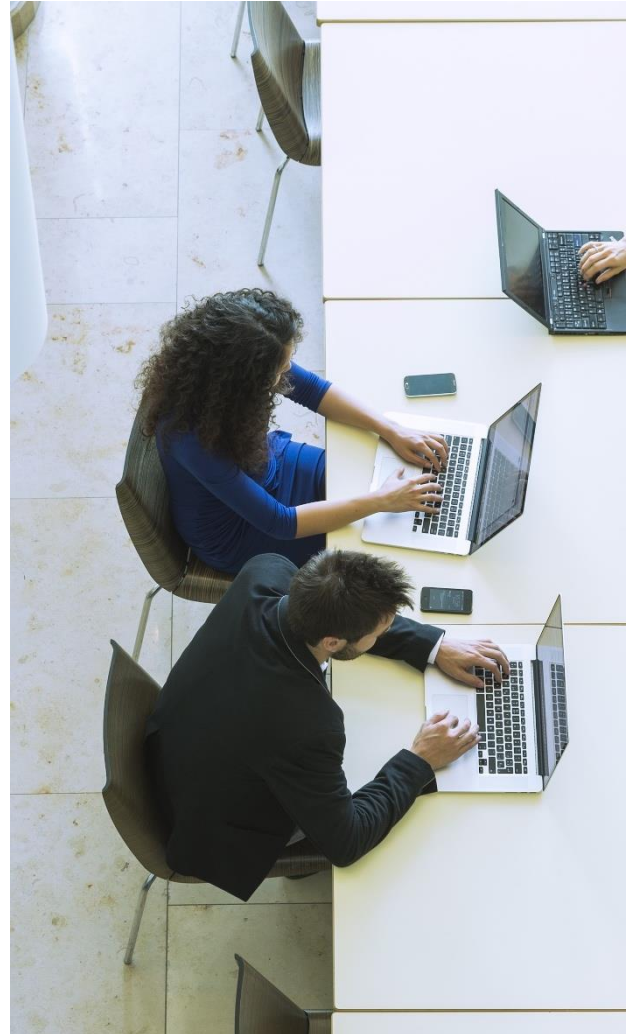
Get Connected students are introduced to the Internet and experiment with various social networking sites. Talking characters and devices make this course a user-friendly environment for an audience new to IT.

Benefits

Get Connected teaches basic communication and collaboration technologies, essential skills for career advancement in today's global workforce.

Learning Components

- 5 chapters
- Illustrations and narrations guide students through topics
- Videos and activities
- Quizzes



Target Audience: Secondary and general audience new to IT

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: No

Languages: Chinese-S, Chinese-T, English, French, German, Hindi, Italian, Portuguese-BR, Spanish

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 30 hours

Recommended Next Course: IT Essentials



Practice to Increase Mastery

Introduction to Packet Tracer

Practice

Course Overview

The Introduction to Packet Tracer series is designed for new users of Packet Tracer for self-study and familiarization with the tool used in many Networking Academy courses. Packet Tracer courses are available for the desktop and for mobile (Android and iOS).

Benefits

The Introduction to Packet Tracer series introduces tips and best practices to help instructors and students use Cisco Packet Tracer as an effective and engaging learning and assessment tool.

Learning Components

- Files and demos
- Hands-on learning activity
- Video Recordings
- Quiz



Target Audience: General audience

Prerequisites: None

ASC Alignment Required: No

Instructor Training Required: No

Languages: English, Ukrainian

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 10 hours



Cisco Packet Tracer

Practice

Course Overview

Packet Tracer is an innovative simulation and visualization tool used for lectures, labs, games, homework, assessments, and competitions. It is embedded in these courses:

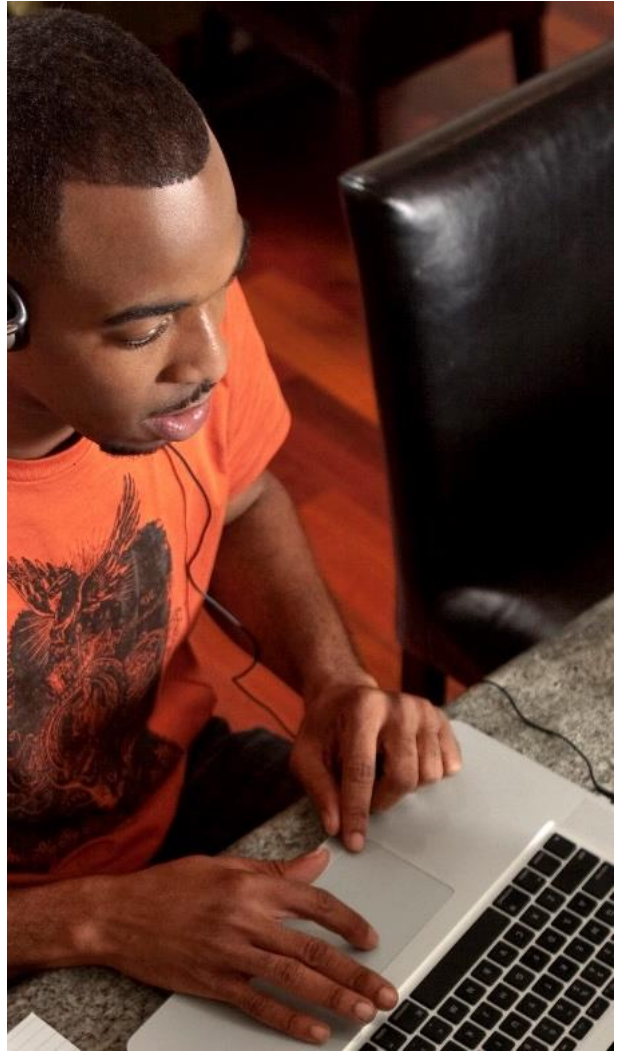
- CCNA Routing and Switching
- CCNA Security
- IT Essentials
- Introduction to Internet of Things
- Mobility Fundamentals

Benefits

The Packet Tracer simulation-based learning environment promotes the development of essential career skills ranging from teamwork and critical thinking to creative problem solving.

Learning Components

- Cisco Packet Tracer (PT)
- PT Mobile Android
- PT Mobile iOS
- PT Games



As an integral part of the Networking Academy learning experience, Packet Tracer provides

- Simulation
- Visualization
- Authoring
- Assessment
- Collaboration capabilities and facilitates the teaching and learning of complex technology concepts.





Cisco Prototyping Lab

Practice

Course Overview

The Cisco Prototyping Lab is a comprehensive learning environment created by Cisco for Networking Academy students to learn and practice key aspects of the foundational IoT technologies. It is embedded in these courses:

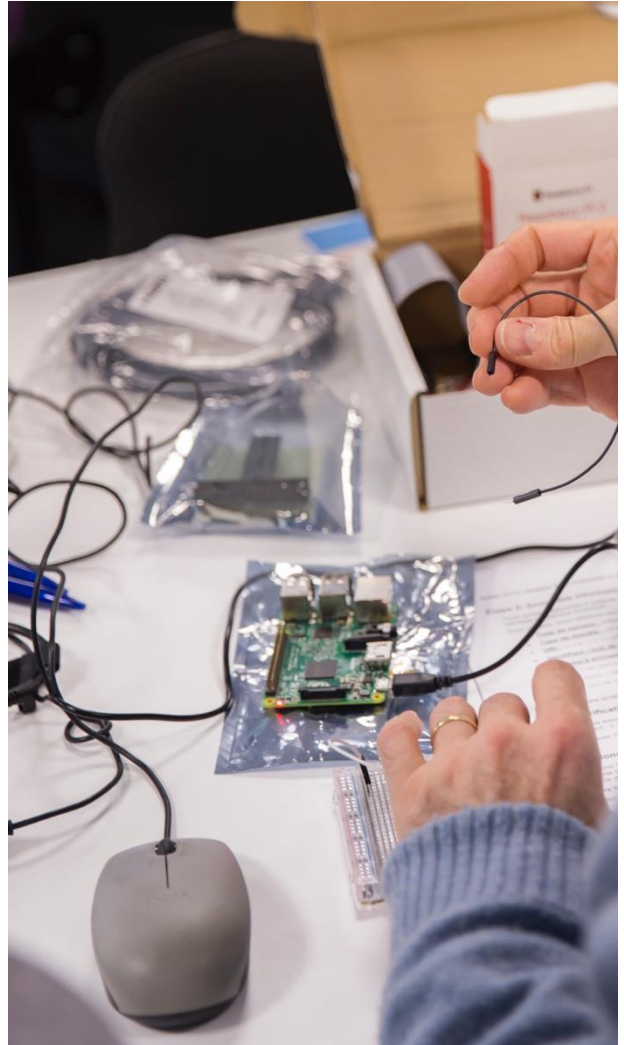
- Connecting Things
- Hackathon Playbook

Benefits

The Cisco Prototyping Lab provides an easy to use, comprehensive learning environment using real devices, code, coding tools and data that students use to create the physical interconnection of an end-to-end IoT and the logical data pipeline to acquire, analyze and present data.

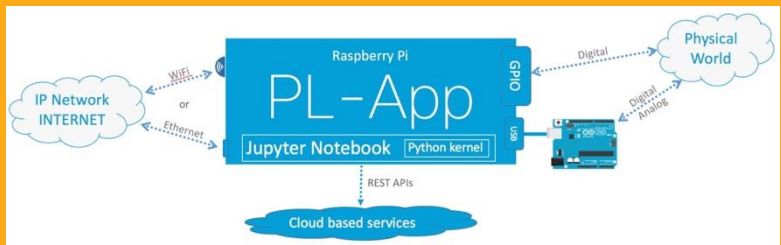
Learning Components

- Prototyping Lab App
- Prototyping Lab Kit
 - Raspberry Pi 3 CanaKit Ultimate Starter Kit (or equivalent)
 - SparkFun Inventor’s Kit for Arduino v3.2 (or equivalent)



The Cisco Prototyping Lab provides:

- Interactive labs using Jupyter Notebook
- Visual programming with Blockly
- Device programming with Python
- Data visualization & analytics
- Connected applications via APIs
- Rapid Prototyping





Course List & Language Availability

Course	Arabic	Chinese-S	Chinese-T	Croatian	Dutch	English	French	Georgian	German	Hebrew	Hindi	Hungarian	Indonesian	Italian	Japanese	Kazakh	Korean	Polish	Portuguese	Romanian	Russian	Spanish	Turkish	Ukrainian
Get Connected		✓	✓			✓	✓		✓		✓			✓					✓			✓		
Intro to Packet Tracer						✓																		✓
NDG Linux Unhatched						✓																✓		
Cybersecurity Essentials		✓				✓	✓		✓						✓				✓		✓	✓		✓
Intro to Cybersecurity	✓	✓			✓	✓	✓		✓	✓			✓	✓	✓	✓		✓	✓		✓	✓		✓
Intro to IoT	✓	✓	✓		✓	✓	✓		✓	✓				✓	✓	✓	✓	✓	✓		✓	✓		✓
Networking Essentials	✓	✓				✓	✓		✓										✓		✓	✓		
Entrepreneurship	✓	✓	✓			✓	✓			✓				✓					✓			✓		
Be Your Own Boss						✓																		
IT Essentials	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
NDG Linux Essentials						✓																✓		
PCAP: Programming Essentials in Python						✓												✓						
Hackathon Playbook						✓																✓		
CCNA R&S: ITN	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓		✓	✓			✓	✓	✓	✓	✓	✓	✓
CCNA R&S: RSE	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓		✓				✓	✓	✓	✓	✓	✓	✓
CCNA R&S: ScaN	✓	✓		✓		✓	✓					✓		✓				✓	✓		✓	✓	✓	
CCNA R&S: CN	✓	✓		✓		✓	✓					✓		✓				✓	✓		✓	✓	✓	
CCNP Routing and Switching						✓																		
Emerging Technologies Workshops						✓																		
IoT Fundamentals: Connecting Things		✓				✓	✓		✓													✓		
IoT Fundamentals: Big Data & Analytics		✓				✓	✓															✓		
CCNA Security		✓				✓															✓			
CCNA Cybersecurity Operations		✓				✓	✓							✓							✓	✓		
IoT Security						✓																		

Explore

Career



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