

# Course Catalog

September 2023



# Table of Contents

- Introduction
- Curriculum Portfolio
- Course Offerings by Category
- Practice Tools
- Language Availability
- Quick Links



Empowering all people  
with career possibilities

# Skills-to-Jobs Curriculum

A comprehensive portfolio to develop job-ready learners



Networking



Cybersecurity



Data Science



Operating Systems  
and IT



Programming



Digital Literacy



Professional Skills



Practice

# Flexible choices for learners and educators

## Independent Learner

On-demand, engaging experiences

## Hybrid

- Learners go through self-paced content with a guide or mentor
- Learners go through self-paced content and come to class for workshops & labs

## Instructor-Led

Virtual or in-class experiences

# Skills-to-Jobs Learning Platforms

More teaching & learning options to expand access for underserved and underrepresented communities and meet learners wherever they are



**skillsforall.com**

- Entry point for tech curious learners, with career pathways to entry-level certifications and job matching
- Flexible options to offer self-paced and instructor-led courses, licensed free to academies
- Academies can leverage pre-built, engaging content to meet learners earlier in their learning journeys
- Greenfield innovation space where we are building out our new teaching & learning experience with interactive, adaptive, and game-based learning



**netacad.com**

- Entry point for learners pursuing tech careers, with courses aligned to entry- and associate-level certifications and job matching
- Curriculum licensed free to academies
- Course progression from Skills for All attracts and prepares learners for instructor-led courses
- Existing teaching experience maintains continuity for educators as we build out our next-gen teaching & learning experience

# Building towards a future experience

We are working to bring our two spaces into one seamless experience, combining the innovations developed on Skills for All with our rich partner and academy ecosystem.

Innovation  
space –  
try it out!

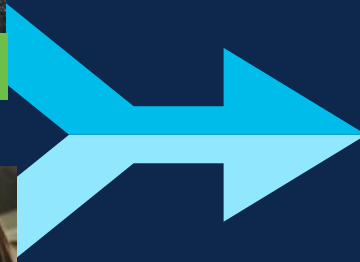


[skillsforall.com](https://skillsforall.com)

Continuity  
space



[netacad.com](https://netacad.com)



Unified  
platform

# Curriculum Portfolio





## Networking

### Networking

Networking Essentials

- Networking Basics
- Networking Devices and Initial Configuration
- Network Addressing and Basic Troubleshooting
- Network Support and Security

CCNA: Introduction to Networks

CCNA: Switching, Routing, and Wireless Essentials

CCNA: Enterprise Networking, Security, & Automation

CCNP Enterprise: Core Networking

CCNP Enterprise: Advanced Routing

### Automation

DevNet Associate

Workshop: Model-Driven Programmability

## Cybersecurity

Introduction to Cybersecurity

Cybersecurity Essentials

- Endpoint Security
- Network Defense
- Cyber Threat Management

CyberOps Associate

Network Security

Ethical Hacker

## Data Science

Introduction to Data Science

Data Analytics Essentials

## Operating Systems & IT

Computer Hardware Basics

Operating System Basics

IT Essentials

Linux Unhatched

Linux Essentials

Linux I

Linux II

## Programming

PCAP: Programming Essentials in Python

- Python Essentials 1
- Python Essentials 2

JavaScript Essentials 1

CLA: Programming Essentials in C

CPA: Programming Essentials in C++

CLP: Advanced Programming in C

CPP: Advanced Programming in C++

Workshop: Experimenting with REST APIs

## Digital Literacy

Get Connected

Introduction to IoT and Digital Transformation

## Professional Skills

### English for IT

English for IT 1  
English for IT 2

### Core Skills

Engaging Stakeholders for Success

### Entrepreneurship

Discovering Entrepreneurship

## Practice

### Cisco Packet Tracer

Getting Started with Cisco Packet Tracer

Exploring Networking with Cisco Packet Tracer

Exploring IoT with Cisco Packet Tracer

### Additional Tools

Virtual labs

Remote accessible labs

Gamification

Physical equipment

Assessments

# Curriculum Portfolio Details

Course	SkillsForAll.com		NetAcad.com		Aligns to Certification or Certificate	Digital Badge	Instructor Training Required	ASC Alignment Required	Physical Equipment Required
	Self-Paced	Instructor-Led	Self-Paced	Instructor-Led					
<b>NETWORKING</b>									
Networking Essentials (version 3.0)		✓			✓	✓		✓	
Networking Essentials (version 2.0)			✓	✓		✓			
Networking Basics	✓	✓			✓	✓			
Networking Devices and Initial Configuration	✓	✓				✓			
Network Addressing and Basic Troubleshooting	✓	✓				✓			
Network Support and Security	✓	✓				✓			
CCNA: Introduction to Networks				✓	✓	✓	✓	✓	✓ Packet Tracer option available
CCNA: Switching, Routing, and Wireless Essentials				✓		✓	✓	✓	
CCNA: Enterprise Networking, Security & Automation				✓		✓	✓	✓	
CCNP Enterprise: Core Networking				✓	✓	✓	✓	✓	✓
CCNP Enterprise: Advanced Routing				✓	✓	✓	✓	✓	✓
DevNet Associate				✓	✓	✓	✓	✓	
Workshop: Model-Driven Programmability				✓		✓		✓	

# Curriculum Portfolio Details

Course	SkillsForAll.com		NetAcad.com		Aligns to Certification or Certificate	Digital Badge	Instructor Training Required	ASC Alignment Required	Physical Equipment Required
	Self-Paced	Instructor-Led	Self-Paced	Instructor-Led					
<b>CYBERSECURITY</b>									
Introduction to Cybersecurity	✓	✓	✓	✓		✓			
Cybersecurity Essentials (version 3.0)		✓			✓	✓			
Cybersecurity Essentials (version 2.0)			✓	✓		✓			
Endpoint Security	✓	✓			✓	✓			
Network Defense	✓	✓				✓			
Cyber Threat Management	✓	✓				✓			
CyberOps Associate				✓	✓	✓	✓	✓	
Network Security				✓		✓	✓	✓	✓
Ethical Hacker	✓	✓				✓			

# Curriculum Portfolio Details

Course	SkillsForAll.com		NetAcad.com		Aligns to Certification or Certificate	Digital Badge	Instructor Training Required	ASC Alignment Required	Physical Equipment Required
	Self-Paced	Instructor-Led	Self-Paced	Instructor-Led					
<b>DATA SCIENCE</b>									
Introduction to Data Science	✓					✓			
Data Analytics Essentials	✓					✓			
<b>OPERATING SYSTEMS &amp; INFORMATION TECHNOLOGY (OS &amp; IT)</b>									
Computer Hardware Basics	✓					✓			
Operating System Basics	✓					✓			
IT Essentials				✓	✓	✓		✓	✓
NDG Linux Unhatched			✓						
NDG Linux Essentials			✓	✓	✓				
NDG Linux I			✓	✓	✓				
NDG Linux II			✓	✓	✓				

# Curriculum Portfolio Details

Course	SkillsForAll.com		NetAcad.com		Aligns to Certification or Certificate	Digital Badge	Instructor Training Required	ASC Alignment Required	Physical Equipment Required
	Self-Paced	Instructor-Led	Self-Paced	Instructor-Led					
<b>PROGRAMMING</b>									
PCAP: Programming Essentials in Python			✓	✓	✓				
Python Essentials 1	✓				✓	✓			
Python Essentials 2	✓				✓	✓			
JavaScript Essentials 1	✓		✓	✓	✓	✓			
CLA: Programming Essentials in C				✓	✓				
CLP: Advanced Programming in C				✓	✓				
CPA: Programming Essentials in C++			✓	✓	✓				
CPP: Advanced Programming in C++				✓	✓				
Workshop: Experimenting with REST APIs				✓				✓	
<b>DIGITAL LITERACY</b>									
Get Connected			✓	✓					
Introduction to IoT and Digital Transformation	✓					✓			

# Curriculum Portfolio Details

Course	SkillsForAll.com		NetAcad.com		Aligns to Certification or Certificate	Digital Badge	Instructor Training Required	ASC Alignment Required	Physical Equipment Required
	Self-Paced	Instructor-Led	Self-Paced	Instructor-Led					
<b>PROFESSIONAL SKILLS</b>									
English for IT 1	✓				✓	✓			
English for IT 2	✓					✓			
Engaging Stakeholders for Success	✓	✓				✓			
Discovering Entrepreneurship	✓	✓				✓			
<b>PRACTICE</b>									
Getting Started with Cisco Packet Tracer	✓					✓			
Exploring Networks with Cisco Packet Tracer	✓								
Exploring IoT with Cisco Packet Tracer	✓								

# Course Offerings



# Networking





## Course Overview

Networking Essentials provides learners with a broad foundational understanding of networking. It is suitable for anyone interested in a career in IT, or a related career. This course provides an engaging, self-paced learning experience using Packet Tracer simulation, interactive activities, and learning everyday devices found at home.

## Benefits

Learners develop a foundational understanding of the high-level network architecture and how a network operates.

## Prepare for Careers

- ✓ Gain the skills needed for entry-level job, internship, and apprenticeship roles, such as Network Support Technician, Entry-level Help Desk Technician, and IT Support Specialist

## Course Details

**Target Audience:** High school, secondary and 2-year college vocational students, IT and non-IT fields university students, career changers

**Estimated Time to Completion:** 65 hours

**Prerequisites:** None

**Course Delivery:** Instructor-led

### Learning Component Highlights:

- ✓ 39 modules
- ✓ 48 practice labs
- ✓ 160+ interactive activities, videos, & quizzes
- ✓ 15 module exams
- ✓ 1 final exam

**Course Recognitions:** Digital Badge

**Certification Aligned:** Cisco Certified Support Technician (CCST) Networking

**Recommended next certification:** Cisco Certified Network Associate (CCNA) or CyberOps Associate



## Requirements

- ASC Alignment: Required
- Instructor Training: Recommended
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

## Course Overview

This course covers the foundation of networking and network devices, media, and protocols. The learner will observe data flowing through a network and basic device configuration to connect to networks.

## Benefits

Teaching your students basic networking concepts is essential for developing IT skills and prepares them for a wide variety of IT career paths.

## Explore Opportunities in Technology

- ✓ Configure a wireless router and wireless host to connect to the internet
- ✓ Teach how protocols, devices, and media enable communication on Ethernet networks
- ✓ Demonstrate how IP addresses enable network communication
- ✓ Create a simple LAN
- ✓ Use application layer services to accomplish real-world tasks.

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## Course Details

**Target Audience:** Secondary or vocational school and college/university students, general audience

**Estimated Time to Completion:** 25 hours

**Prerequisites:** None

**Course Delivery:** Instructor-led or Self-paced

### Learning Component Highlights:

- ✓ 17 modules and 13 practice labs
- ✓ Interactive activities and quizzes
- ✓ 1 final test

**Course Recognitions:** Digital Badge

**Certification Alignment:** This course is part of the Junior Cybersecurity Analyst Career Path and Network Technician Career Path which align to the CCST Cybersecurity and CCST Networking Certifications.

**Recommended Next Course:**  
Networking Devices and Initial Configuration

[skillsforall.com](https://skillsforall.com)



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

# Networking Devices and Initial Configuration

## Course Overview

This course teaches intermediate knowledge and skills for networking by covering basic concepts and skills needed to build a home office network and a small office network.

## Benefits

By teaching the characteristics and benefits of Cloud and Virtualization technologies, your students develop skills to calculate an IP addressing scheme and configure Cisco devices to create a small network.

## Explore Opportunities in Technology

- ✓ Teach the characteristics of Virtualization and Cloud services.
- ✓ Explain how Ethernet operates in a switched network.
- ✓ Show how routers use network layer protocols and services.
- ✓ Demonstrate how the TCP protocol guarantees data delivery.
- ✓ Configure a simple computer network using Cisco devices.

## Course Details

**Target Audience:** Secondary or vocational school and college/university students, general audience

**Estimated Time to Completion:** 25 hours

**Prerequisites:** Networking Basics or equivalent knowledge

**Course Delivery:** Instructor-led and Self-paced

### Learning Component Highlights:

- ✓ 12 modules and 17 practice labs
- ✓ Interactive activities and quizzes
- ✓ 1 final test

**Course Recognitions:** Digital Badge

**Certification Alignment:** This course is part of the Junior Cybersecurity Analyst Career Path and Network Technician Career Path which align to the CCST Cybersecurity and CCST Networking Certifications.

**Recommended Next Course:**  
Network Addressing and Basic Troubleshooting

[skillsforall.com](https://skillsforall.com)



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

# Network Addressing and Basic Troubleshooting

## Course Overview

This course examines the Physical layer in depth, topologies at the Data Link layer, and basic routing at the Network layer. It dives deep into static and dynamic IPv4 and IPv6 addressing and address resolution.

## Benefits

Teach your students the components and functionality of Cisco switches and routers, troubleshooting methodologies for some of the most common networking issues, and an overview of providing customer support preparing them for a wide variety of IT careers paths.

## Explore Opportunities in Technology

- ✓ Explain the features and functions of the physical, data link, and network layers.
- ✓ Develop a networking scheme for a small network based on stated requirements.
- ✓ Explain the operation of Cisco switches and routers.
- ✓ Teach basic troubleshooting for network connectivity issues.

## Course Details

**Target Audience:** Secondary school and college/university students, general audience

**Estimated Time to Completion:** 18 hours

**Prerequisites:** Networking Devices and Initial Configuration or equivalent knowledge

**Course Delivery:** Instructor-led and Self-paced

### Learning Component Highlights:

- ✓ 8 modules and 8 practice labs
- ✓ Interactive activities and quizzes
- ✓ 1 final test

**Course Recognitions:** This course is part of the Network Technician Career Path which aligns to the CCST Networking Certification.

### Recommended Next Course:

CCNA: Switching, Routing and Wireless Essentials

[skillsforall.com](https://skillsforall.com)



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

## Course Overview

This course covers general IT and Network Support, delves into Cybersecurity Threats, Vulnerabilities, and Attacks. The learner will observe essential configuration steps to ensure secure user access on a network.

## Benefits

This course builds learners' networking knowledge and can lead to exciting career opportunities in technology.

## Explore Opportunities in Technology

- ✓ Teach effective troubleshooting methodologies and help desk best practices.
- ✓ Explain common threats, vulnerabilities, and attacks on end points.
- ✓ Show how to configure secure user access on a network.

## Course Details

**Target Audience:** High school, secondary and 2-year college vocational students, IT and non-IT fields university students, career changers

**Estimated Time to Completion:** 12 hours

**Prerequisites:** Network Addressing and Basic Troubleshooting course or equivalent knowledge

**Course Delivery:** Instructor-led and Self-paced

### Learning Component Highlights:

- ✓ 3 modules and 10 practice labs
- ✓ Interactive activities and quizzes
- ✓ 1 final test

**Course Recognitions:** Digital Badge

**Certification Aligned:** This course is part of the Network Technician Career Path which aligns to the Cisco Certified Support Technician (CCST) Networking certification.

### Recommended next certification:

Cisco Certified Network Associate (CCNA), or CyberOps Associate



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

# CCNA: Introduction to Networks (ITN)

## Course Overview

The first course in the CCNA curriculum introduces the architectures, models, protocols, and networking elements that connect users, devices, applications and data through the Internet and across modern computer networks - including IP addressing and Ethernet fundamentals.

## Benefits

Learn to build simple local area networks (LAN) that integrate IP addressing schemes, foundational network security, and perform basic configurations for routers and switches.

## Prepare for Careers

- ✓ Develop skills for entry-level networking jobs
- ✓ Prepare for CCNA certification exam
- ✓ Fulfill prerequisites to pursue more specialized networking skills

## Course Details

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

Estimated Time to Completion: 70 hours

Prerequisites: None

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 17 modules and 24 practice labs
- ✓ 31 Cisco Packet Tracer activities
- ✓ 120+ interactive activities, videos, & quizzes
- ✓ 1 final exam

Course Recognitions: Certificate of Completion, Letter of Merit, Digital Badge

Recommended Next Course:  
CCNA: Switching, Routing, and Wireless Essentials (SRWE)



Networking



## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: Yes
- Physical Equipment Required: Yes\*
- Discount Availability: Not Applicable

\*Includes Distance Learning option with Packet Tracer if lab equipment is not available

Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



Certification Aligned

Cisco Certified Networking Associate

# CCNA: Switching, Routing, and Wireless Essentials (SRWE)

## Course Overview

The second course in the CCNA curriculum focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area networks (WLAN) and security concepts.

## Benefits

Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate local area network (LAN) security threats, and configure and secure a basic WLAN.

## Prepare for Careers

- ✓ Develop skills for entry-level networking jobs
- ✓ Prepare for CCNA certification exam
- ✓ Fulfill prerequisites to pursue more specialized networking skills

## Course Details

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

Estimated Time to Completion: 70 hours

Prerequisites: None

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 16 modules and 14 practice labs
- ✓ 31 Cisco Packet Tracer activities
- ✓ 70+ interactive activities, videos, & quizzes
- ✓ 1 final exam

Course Recognitions: Certificate of Completion, Letter of Merit, Digital Badge

Recommended Next Course:  
CCNA: Enterprise Networking, Security, and Automation (ENSA)



Networking

## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: Yes
- Physical Equipment Required: Yes\*
- Discount Availability: Not Applicable

\*Includes Distance Learning option with Packet Tracer if lab equipment is not available

Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



Certification Aligned

Cisco Certified Networking Associate

# CCNA: Enterprise Networking, Security, and Automation (ENSA)

## Course Overview

The final course in the CCNA series covers the architecture, security, and operation of an enterprise network, along with introducing the new ways in which network engineers interact with programmable infrastructure.

## Benefits

Gain skills to configure and troubleshoot enterprise networks, learn to identify and protect against cybersecurity threats, and discover key concepts of software-defined networking, including controller-based architectures and application programming interfaces (APIs).

## Prepare for Careers

- ✓ Develop skills for entry-level networking jobs
- ✓ Prepare for CCNA certification exam
- ✓ Fulfill prerequisites to pursue more specialized networking skills

## Course Details

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

Estimated Time to Completion: 70 hours

Prerequisites: None

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 14 modules and 12 practice labs
- ✓ 29 Cisco Packet Tracer activities
- ✓ 100+ interactive activities, videos, & quizzes
- ✓ 1 practice certification exam

Course Recognitions: Certificate of Completion, Letter of Merit, Digital Badge

Recommended Next Course:  
CCNP Enterprise: Core Networking (ENCOR)



Networking

## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: Yes
- Physical Equipment Required: Yes\*
- Discount Availability: Yes

\*Includes Distance Learning option with Packet Tracer if lab equipment is not available

Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



Certification Aligned

Cisco Certified Networking Associate



# CCNP Enterprise: Core Networking (ENCOR)

## Course Overview

This first course in the 2-course CCNP Enterprise series covers switching, routing, wireless, and related security topics, along with the technologies that support software-defined, programmable networks.

## Benefits

Gain practical, hands-on experience and skills needed to configure, operate and troubleshoot large scale enterprise networks.

## Prepare for Careers

- ✓ Develop skills for professional-level networking roles
- ✓ Prepare for the Cisco Enterprise Network Core Technologies exam ([350-401 ENCOR](#)) to earn an Enterprise Core Specialist certification
- ✓ Completion of both CCNP Enterprise courses prepares for CCNP Enterprise certification

## Course Details

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

Estimated Time to Completion: 70 hours

Recommended Preparation: CCNA or equivalent

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 29 chapters and 41 practice labs
- ✓ 24 Cisco Packet Tracer activities (optional)
- ✓ 35+ interactive activities, videos, & quizzes
- ✓ 1 practice certification exam

Course Recognitions: Certificate of Completion, Letter of Merit, Digital Badge

Recommended Next Course:  
CCNP Enterprise: Advance Routing (ENARSI)



Networking



## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: Yes
- Physical Equipment Required: Yes
- Discount Availability: Not Applicable

Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



Certification Aligned

[Cisco Certified Networking Professional](#)

# CCNP Enterprise: Advanced Routing (ENARSI)

## Course Overview

This second of the 2-course CCNP Enterprise series focuses on implementation and troubleshooting of advanced routing and redistribution for OSPF, EIGRP and BGP along with VPN technologies, infrastructure security and management tools used in Enterprise networks.

## Benefits

Gain practical, hands-on experience and skills needed to configure, operate and troubleshoot large scale enterprise networks.

## Prepare for Careers

- ✓ Develop skills for professional-level networking roles
- ✓ Prepare for Cisco Enterprise Advanced Routing & Services exam ([300-410 ENARSI](#)) to earn a CCNP Specialist certification
- ✓ Completion of both CCNP Enterprise courses prepares for CCNP Enterprise certification

## Course Details

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

Estimated Time to Completion: 70 hours

Recommended Preparation: ENCOR or equivalent

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 23 chapters and 40 practice labs
- ✓ 20 Cisco Packet Tracer activities (optional)
- ✓ 25+ videos & quizzes, 2 Skills Assessments
- ✓ 1 practice certification exam

Course Recognitions: Certificate of Completion, Letter of Merit, Digital Badge

Recommended Next Course:

Broaden your skills with DevNet Associate, CyberOps Associate, Python, or Emerging Technologies Workshops

[Quick Links](#)

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



Networking



## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: Yes
- Physical Equipment Required: Yes
- Discount Availability: Not Applicable



Certification Aligned

[Cisco Certified Networking Professional](#)

# DevNet Associate

## Course Overview

This course introduces the methodologies and tools of modern software development, applied to the IT and Network operations. It covers a 360° view of the domain including microservices, testing, containers and DevOps, as well as securely automating infrastructures with Application Programming Interfaces (APIs).

## Benefits

Gain practical, relevant, hands-on lab experience, including programming in Python, using GIT and common data formats (JSON, XML and YAML), deploying applications as containers, using Continuous Integration/Continuous Deployment (CI/CD) pipelines, and automating infrastructure using code.

## Prepare for Careers

- ✓ Develop skills for entry-level software development and infrastructure automation jobs
- ✓ Prepare for DevNet Associate certification exam

## Course Details

Target Audience: Secondary vocational students, 2-year and 4-year college students and participants of coding bootcamps

Estimated Time to Completion: 70 hours

Recommended Preparation:

Object-oriented coding skills, equivalent to:

PCAP: Programming Essentials in Python

Fundamental skills of networking, equivalent to:

CCNA: Introduction to Networks

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 8 modules and 23 practice labs
- ✓ 5 Cisco Packet Tracer activities
- ✓ 6 videos, 8 quizzes, 8 module exams
- ✓ 1 final exam, 1 practice certification exam

Course Recognitions: Certificate of Completion, Letter of Merit, Digital Badge

Recommended Next Course: CCNA, CCNP Enterprise, or CyberOps Associate



Infrastructure Automation

## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: Yes
- Physical Equipment Required: No (Uses Virtual Machines on the student's computer)
- Discount Availability: Yes

[Quick Links](#)

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



Certification Aligned

Cisco Certified DevNet Associate

# Workshop: Model-Driven Programmability

## Course Overview

This workshop introduces students to device level programmability. By defining standardized device models and APIs, network device configuration and management tasks can be automated, making it easier to manage network devices at scale.

## Benefits

Learn key model-driven programmability concepts: YANG to model networking devices, RESTCONF and NETCONF for device-level APIs, and Python scripting to programmatically retrieve and update device configurations.

## Prepare for Careers

- ✓ Emerging Technologies Workshops are short, hands-on experiences to quickly develop new skills for today's job market
- ✓ Participate in relevant professional communities of practice (Cisco DevNet, GitHub, and Stack Overflow)

## Course Details

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

Estimated Time to Completion: 8 hours

Prerequisites: Basic programming, CCNA: Switching, Routing, and Wireless Essentials (SRWE) or equivalent

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 2 chapters and 10 practice labs
- ✓ 10 interactive activities
- ✓ 1 final exam

Course Recognitions: Certificate of Completion, Digital Badge

Recommended Insertion Points:

- After CCNA: SRWE
- With Network Security or CCNP Enterprise: Core Networking (ENCOR)



Infrastructure Automation

## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: No (Self-paced training option available)
- Physical Equipment Required: Internet access to Cisco DevNet Labs and APIs (Free)
- Discount Availability: Not Applicable

[Quick Links](#)

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



**DevNet Sandbox**

Practice running code on live network infrastructure

# Cybersecurity



# Introduction to Cybersecurity

## Course Overview

This course explores cyber trends, threats, and staying safe in cyberspace, and protecting personal and company data.

## Benefits

Today's interconnected world makes everyone more susceptible to cyber-attacks. Teach how to protect personal data and privacy online, in social media, and why more and more IT jobs require cybersecurity awareness and understanding.

## Explore Opportunities in Technology

- ✓ Builds cybersecurity understanding for a secure and safe digital life
- ✓ Explores many career possibilities cybersecurity skills offers

## Course Details

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

**Estimated Time to Completion:** 6 hours

**Prerequisites:** None

**Course Delivery:** Instructor-led or Self-paced

### Learning Component Highlights:

- ✓ 5 modules and 7 practice labs
- ✓ Interactive activities & quizzes
- ✓ 1 final exam

**Course Recognitions:** Digital Badge

### Recommended Next Course:

Networking Essentials or Cybersecurity Essentials



## Requirements

- ASC Alignment Required: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

# Cybersecurity Essentials

## Course Overview

A course designed for learners interested in pursuing a career in cybersecurity. It prepares for a Junior Cybersecurity Analyst role by equipping learners with job skills across three domains: Endpoint Security, Network Defense, and Cyber Threat Management.

## Benefits

Cybersecurity skills are heavily sought in the job market. Students can apply for entry-level junior cybersecurity analyst roles or continue learning toward associate and professional positions.

## Prepare for Careers

- ✓ Gain the skills needed for entry-level job, internship, and apprenticeship roles, such as Junior Cybersecurity Analyst, Cybersecurity Technician, Cybersecurity Specialist, and Tier 1 Help Desk Support.

## Course Details

**Target Audience:** High school, secondary or vocational school and college/university students, general audience

**Estimated Time to Completion:** 70 hours

**Prerequisites:** Foundational understanding of networking and network device configuration

**Course Delivery:** Instructor-led

### Learning Component Highlights:

- ✓ 27 modules and 75 practice activities
- ✓ Interactive activities and quizzes
- ✓ 1 final exam

**Course Recognitions:** Digital Badge

**Certification Alignment:** This course aligns with the CCST Cybersecurity certification.

**Recommended Next Course:** CyberOps Associate



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Recommended
- Basic Equipment: Computer and Internet
- Additional Equipment Required: No

## Course Overview

This course covers how to assess the network, operating systems, and endpoints for vulnerabilities, and how to secure the network. It also covers skills to maintain the integrity, confidentiality, and availability in the network and data.

## Benefits

The demand for security professionals continues to grow. Teach the foundational knowledge used in the workplace as a Cybersecurity Technician.

## Prepare for Careers

- ✓ Develop a cybersecurity foundation
- ✓ Offer the next step in exploring the many career possibilities in cybersecurity
- ✓ Build skills securing a network all the way to the edge, including hardware, software, and media

## Course Details

**Target Audience:** Secondary and 2-year college vocational students; Reskilling to find a job in cyber

**Estimated Time to Completion:** 27 hours

**Recommended Preparation:** Introduction to Cybersecurity

**Course Delivery:** Instructor-led or Self-paced

Learning Component Highlights:

- ✓ 10 modules
- ✓ 31 Labs and Cisco Packet Tracer activities
- ✓ 40+ interactive activities & quizzes
- ✓ 1 final exam

**Course Recognitions:** Digital Badge

**Certification Alignment:** This course is part of the Junior Cybersecurity Analyst Career path which aligns to the CCST Cybersecurity Certification

**Recommended Next Course:** Network Defense



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer / Mobile Device and Internet
- Additional Equipment Required: No



## Course Overview

This course covers different methods to monitor the network and how to evaluate security alerts. It delves into tools and techniques used to protect the network, including access control, firewalls, cloud security, and cryptography.

## Benefits

The demand for security professionals continues to grow. Gain the intermediate knowledge used in the workplace as a Cybersecurity Technician.

## Prepare for Careers

- ✓ Builds a cybersecurity foundation
- ✓ Explores the many career possibilities in cybersecurity
- ✓ Develops skills to create a layered defense-in-depth cybersecurity strategy

## Course Details

**Target Audience:** Secondary and 2-year college vocational students; Reskilling to find a job in cyber

**Estimated Time to Completion:** 27 hours

**Recommended Preparation:** Introduction to Cybersecurity and Endpoint Security

**Course Delivery:** Instructor-led or Self-paced

### Learning Component Highlights:

- ✓ 11 modules
- ✓ 29 Labs and Cisco Packet Tracer activities
- ✓ 58 + interactive activities & quizzes
- ✓ 1 final exam

**Course Recognitions:** Digital Badge

**Certification Alignment:** This course is part of the Junior Cybersecurity Analyst Career Path and aligns with the CCST Cybersecurity certification

**Recommended Next Course:** Cyber Threat Management



## Requirement

- ASC Alignment: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer / Mobile Device and Internet
- Additional Equipment Required: No

# Cyber Threat Management

## Course Overview

This course explores governance in cybersecurity and threat management. Learn to develop policies and ensure your organization complies with ethics standards and legal and regulatory frameworks.

## Benefits

The demand for security professionals continues to grow. Develop advanced knowledge you will use in the workplace as a Cybersecurity Technician.

## Prepare for Careers

- ✓ Builds a cybersecurity foundation
- ✓ Explores the many career possibilities in cybersecurity
- ✓ Develops skills for managing threats, such as how to assess a network for vulnerabilities, manage risks, and respond to security incidents

## Course Details

**Target Audience:** Secondary and 2-year college vocational students; Reskilling to find a job in cybersecurity.

**Estimated Time to Completion:** 16 hours

**Recommended Preparation:** Introduction to Cybersecurity, Endpoint Security, and Network Defense

**Course Delivery:** Instructor-led or Self-paced

### Learning Component Highlights:

- ✓ 6 modules
- ✓ 16 Labs and Cisco Packet Tracer activities
- ✓ 28+ interactive activities & quizzes
- ✓ 1 final exam

**Course Recognitions:** Digital Badge

**Certification Alignment** This course is part of the Junior Cybersecurity Analyst Career Path which aligns to the CCST Cybersecurity Certification



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer / Mobile Device and Internet
- Additional Equipment Required: No

# CyberOps Associate

## Course Overview

This course 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.

## Benefits

Gain practical, hands-on skills needed to maintain and ensure security operational readiness of secure networked systems.

## Prepare for Careers

- ✓ Develop skills for entry-level security operations center (SOC) jobs
- ✓ Prepare for CyberOps Associate certification
- ✓ Pursue a career in cybersecurity operations, a rapidly-growing, exciting new area that spans all industries

## Course Details

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

Estimated Time to Completion: 70 hours

Recommended Preparation: Introduction to Cybersecurity, Cybersecurity Essentials

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 28 chapters and 46+ practice labs
- ✓ 6 Cisco Packet Tracer activities
- ✓ 113 interactive activities, videos, & quizzes
- ✓ 1 practice certification exam

Course Recognitions: Certificate of Completion, Letter of Merit, Digital Badge

Recommended Next Course: Cloud Security, Network Security, IoT Security



Cybersecurity



## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: Yes
- Physical Equipment Required: No (Uses Virtual Machines on the student's computer)
- Discount Availability: Yes

Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



Certification Aligned

Cisco Certified CyberOps Associate

# Network Security

## Course Overview

This course introduces the core security concepts and skills needed to configure and troubleshoot computer networks and help ensure the integrity of devices and data.

## Benefits

Gain practical, hands-on skills to design, implement, and manage network security systems and ensure their integrity.

## Prepare for Careers

- ✓ Build expertise in network security and data protection
- ✓ Develop skills for entry-level network security specialist roles
- ✓ Gain industry in-demand skills aligned with the National Institute for Standards and Technology (NIST) Cybersecurity Framework

## Course Details

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

Estimated Time to Completion: 70 hours

Recommended Preparation: Basic understanding of computer networks (CCNA: Introduction to Networks and CCNA: Switching, Routing, and Wireless Essentials, or equivalent)

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 22 modules and 25 practice labs
- ✓ 22 Cisco Packet Tracer activities
- ✓ 87+ interactive activities, videos, and quizzes
- ✓ 1 final exam

Course Recognitions: Certificate of Completion, Letter of Merit, Digital Badge

Recommended Next Course: CyberOps Associate, Cloud Security, IoT Security



Cybersecurity

## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: Yes
- Physical Equipment Required: Yes
- Discount Availability: Not Applicable

Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



Hands-on practice with  
Cisco Packet Tracer

# Ethical Hacker

## Course Overview

The Ethical Hacker course prepares learners with skills to proactively discover vulnerabilities before the cybercriminals do. Learners will become proficient in the art of scoping, executing, and reporting on vulnerability assessments, while recommending mitigation strategies.

## Benefits

Through the gamified narrative in the course and real-world inspired hands-on practice labs, students develop essential workforce readiness skills, laying a solid foundation in offensive security.

## Prepare for Careers

- ✓ Get job-ready for Offensive Security roles such as Ethical Hacker or Penetration Tester.
- ✓ Understand the mindset and tactics of cybercriminals to strengthen your defensive security skillset.
- ✓ Gain needed skills for implementing security controls and monitoring, analyzing, and responding to current security threats.

## Course Details

**Target Audience:** College/university students or vocational school students

**Estimated Time to Completion:** 70 hours

### Prerequisites:

- Entry-level cybersecurity knowledge: CCST Cybersecurity certification or Cybersecurity Essentials or Junior Cybersecurity Analyst Career Path, or equivalent
- Basic programming knowledge

**Course Delivery:** Instructor-led and Self-paced

### Learning Component Highlights:

- ✓ 10 modules and 34 labs
- ✓ 86 interactive practice activities and quizzes
- ✓ 1 final exam
- ✓ 1 skills-based assessment

**Course Recognitions:** Digital Badge

**Recommended Next Course:**  
CyberOps Associate, Network Security



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Recommended
- Basic Equipment: Computer and Internet
- Additional Equipment: No

# Data Science



# Introduction to Data Science

## Course Overview

This introductory course takes learners inside the world of data science. They will learn the basics in the fields of data science, data analytics and data engineering to better understand how machine learning is shaping the future of business, healthcare, education and more.

## Benefits

Data science professionals who can provide actionable insights for data-driven decisions are in high demand.

## Explore Opportunities in Technology

- ✓ Develop your awareness of opportunities that data analytics enable.
- ✓ Explore career opportunities in the Data Science, Analytics, Data Engineering, Artificial Intelligence and Machine Learning landscapes.

[View Course](#)

## Course Details

**Target Audience:** High-school, Secondary and 2-Year college students, General audience

**Estimated Time to Completion:** 6 hours

**Prerequisites:** None

**Course Delivery:** Instructor-guided or Self-paced

### Learning Component Highlights:

- ✓ 4 modules
- ✓ 5 practice lab activities
- ✓ 1 interactive pivot table widget
- ✓ 13 videos
- ✓ Knowledge checks and module quizzes
- ✓ Final exam

**Course Recognitions:** Digital Badge

**Recommended Insertion Points:** A great start for learners exploring the area of data science along with machine learning, artificial intelligence, analytics and big data.



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No

# Data Analytics Essentials

## Course Overview

Learners will understand how to use the fundamental tools of a data analyst, and how to transform, organize and visualize data with spreadsheet tools such as Excel. They will learn how to query data from a relational database using SQL and how to improve their data presentations using powerful business intelligence tools like Tableau. By the end of the course, they will have an analytics portfolio complete with an analysis of popular datasets, showcasing their skills in Excel, SQL and Tableau.

## Benefits

Organizations all over the world recognize the value of analytics. This course teaches the tools of the trade.

## Prepares for Careers

- ✓ SQL and Excel, used in every organization
- ✓ Dashboarding, data visualizations and storytelling with data are highly sought after

[View Course](#)

## Course Details

**Target Audience:** High school, secondary and 2-year college vocational students, college and university students studying IT or non-IT fields, career changers

**Estimated Time to Completion:** 30 hours

**Prerequisites:** None

**Course Delivery:** Instructor-guided or Self-paced

### Learning Component Highlights:

- ✓ 9 modules
- ✓ 26 practice labs
- ✓ 42 videos
- ✓ 90 practice opportunities
- ✓ 9 module exams
- ✓ 1 final exam

**Course Recognitions:** Digital Badge

**Recommended Next Course:** Python Essentials 1



## Requirements

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No



# Operating Systems & Information Technology



# Computer Hardware Basics

## Course Overview

This course teaches the fundamentals of computers and mobile devices by covering the basic concepts and skills needed to install components to build, repair, or upgrade personal computers.

## Benefits

This course provides the learner with an engaging, foundational view of computers and mobile devices, including desktop and laptop computers, and other mobile devices such as tablets and mobile phones.

## Explore Opportunities in Technology

- ✓ Install components to build, repair, or upgrade personal computers.
- ✓ Explain the features and functions of laptops.
- ✓ Explain the features and functions of other mobile devices.

## Course Details

**Target Audience:** Secondary, vocational, career technical school and immediate post-secondary students, general audience

**Estimated Time to Completion:** 6 hours

**Prerequisites:** None

**Course Delivery:** Self-paced

### Learning Component Highlights:

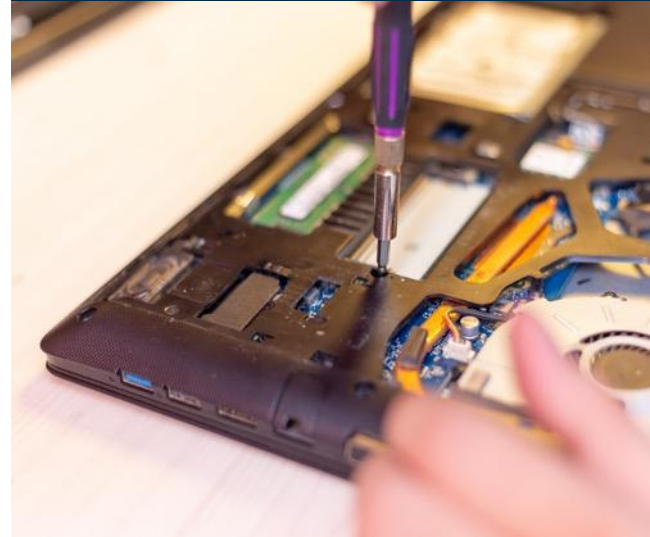
- ✓ 3 modules
- ✓ Practice items, labs and quizzes
- ✓ 1 final exam

**Course Recognitions:** Digital Badge

### Recommended Next Course:

Operating Systems Basics, Networking Basics

[skillsforall.com](https://skillsforall.com)



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

# Operating Systems Basics

## Course Overview

This course teaches the fundamentals of operating systems by covering the basic concepts and skills needed to explain the purpose and characteristics of operating systems, implement basic operating system security, and explain how to configure mobile device network connectivity.

## Benefits

This course provides the learner with an engaging, foundational view of operating systems and mobile device connectivity, including Windows, Linux, Android, and iOS.

## Explore Opportunities in Technology

- ✓ Use Windows administrative tools.
- ✓ Implement basic Linux security.
- ✓ Explain how to configure network connectivity and email on mobile devices.
- ✓ Explain the purpose and characteristics of mobile operating systems.

## Course Details

**Target Audience:** Secondary, vocational, career technical school and immediate post-secondary students, general audience

**Estimated Time to Completion:** 16 hours

**Prerequisites:** None

**Course Delivery:** Self-paced

### Learning Component Highlights:

- ✓ 8 modules and 18 practice labs
- ✓ Checkpoints and quizzes
- ✓ 1 final test

**Course Recognitions:** Digital Badge

### Recommended Next Course:

Networking Basics, Introduction to Networks

[skillsforall.com](https://skillsforall.com)



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Optional
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

# IT Essentials

IT

OS &amp; 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

Learn the fundamentals of connecting computers to networks. Plus, you'll enjoy working with Cisco Networking Academy's advanced simulation tools with hands-on labs to hone your troubleshooting skills and immediately practice what you learn!

## Prepare for Careers

- ✓ Develop skills for entry-level technical support roles
- ✓ Prepare for CompTIA A+ certification exam
- ✓ Build your foundation for CCNA-level courses

## Course Details

Target Audience: Secondary and 2-year college vocational students

Estimated Time to Completion: 70 hours

Prerequisites: None

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 14 chapters and 99 practice labs
- ✓ Cisco Packet Tracer, virtual laptop, and virtual desktop learning tools
- ✓ 29+ interactive activities
- ✓ 18+ assessments throughout the course
- ✓ 1 final and 2 practice certification exams

Course Recognitions: Certificate of Completion, Digital Badge, Letter of Merit

Recommended Next Course:  
CCNA: Introduction to Networking (ITN)

[Quick Links](#)[Course Page](#)[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



**Certification Aligned**  
[CompTIA A+ Certification](#)

## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: No
- Physical Equipment Required: Yes
- Discount Availability: Not Applicable

# NDG Linux Unhatched

## Course Overview

This course covers introductory back-end operating system knowledge by teaching basic installation and configuration of Linux and introducing the Linux command line.

## Benefits

Learners ease into acquiring Linux knowledge without having to commit to more than 8 total hours of self-paced learning, guided step-by-step with a series of hands-on virtual machine activities.

## Explore Opportunities in Technology

- ✓ Wade into the shallow end of Linux and see whether it's for you or not
- ✓ Develop your digital basics
- ✓ Start exploring the many career possibilities these skills can open up for you

## Course Details

Target Audience: Secondary and general audience new to IT

Estimated Time to Completion: 6-8 hours

Prerequisites: None

Course Delivery: Self-paced

Learning Component Highlights:

- ✓ 1 module
- ✓ 20 pages
- ✓ Built-in Linux machine with activities
- ✓ 1 assessment

Course Recognitions: Letter of Completion

Recommended Next Course:  
NDG Linux Essentials

In partnership with



OS & IT



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No
- Discount Availability: Not Applicable

[Quick Links](#)

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)

**Career Advice**

[Tips for getting started in your career](#)

# NDG Linux Essentials

## Course Overview

This course teaches fundamentals of the Linux operating system, command line, and open source programming concepts.

## Benefits

Nearly every IT job requires some Linux knowledge. Gain hands-on practice with Linux commands through the Linux virtual machine embedded in the course.

## Prepare for Careers

- ✓ Develop fundamental operating system skills for entry-level IT jobs
- ✓ Prepare for LPI certificate exam
- ✓ Fulfill prerequisites to pursue more specialized IT and networking skills

## Course Details

Target Audience: Secondary and 2-year college students

Estimated Time to Completion: 70 hours

Prerequisites: None

Course Delivery: Instructor-led or Self-paced

Learning Component Highlights:

- ✓ 16 chapters and 13 practice labs
- ✓ Built-in virtual machine to experiment with Linux commands
- ✓ Learner-directed activities
- ✓ Chapter, midterm, and final exams

Course Recognitions: Letter of Completion

Recommended Next Course:  
NDG Linux I

In partnership with



[Quick Links](#)

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)

IT

OS & IT



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No
- Discount Availability: Yes



**Certification Aligned**

[Linux Professional Institute \(LPI\) Linux Essentials Professional Development Certificate](#)

# NDG Linux I and II

## Course Overview

A 2-course series for aspiring Linux system administrators. Covers performing maintenance tasks on the command line, installing and configuring a computer running Linux, and configuring basic networking, using virtual machines running Linux.

## Benefits

More rigorous and comprehensive than NDG Linux Essentials, this course develops your Linux mastery. Gain hands-on practice with Linux commands through the Linux virtual machine embedded in the course.

## Prepare for Careers

- ✓ Develop skills for careers in cloud computing, cybersecurity, information systems, networking, programming, software development, big data, and more
- ✓ Prepare for LPIC-1 certification exams

## Course Details

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

Estimated Time to Completion: 140 hours

Recommended Preparation: NDG Linux Essentials or equivalent

Course Delivery: Instructor-led or Self-paced

Learning Component Highlights:

- ✓ Built-in virtual machine to experiment with Linux commands
- ✓ Practice labs and activities
- ✓ Chapter, midterm, and final exams

Course Recognitions: Letter of Completion

Recommended Next Course:  
DevNet Associate

In partnership with



OS & IT



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No
- Discount Availability: Yes
- Cost: Fee for self-paced classes. Cost for instructor-led classes is determined by the institution.

[Quick Links](#)

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



**Certification Aligned**

[Linux Professional Institute LPIC-1](#)

# Programming





# Python Essentials 1

## Course Overview

This course teaches in-demand skills including how to design, develop, and improve computer programs using Python.

## Benefits

Used by startups and tech giants like Google, Facebook, Netflix, and more, Python with user-friendly with easy-to-read code offers endless possibilities for creating small and large-scale software projects.

## Explore Opportunities in Technology

- ✓ Explores the world of computer programming and the careers it offers
- ✓ Develops coding skills using Python
- ✓ Teaches about data types, variables, I/O operations, control flow and functions

## Course Details

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

**Estimated Time to Completion:** 30 hours

**Prerequisites:** None

**Course Delivery:** Self-paced

### Learning Component Highlights:

- ✓ 4 modules and 30 practice labs
- ✓ Interactive activities & quizzes
- ✓ 1 final project
- ✓ 1 final test

**Course Recognitions:** Digital Badge

**Certification Aligned:** PCEP: Certified Entry-Level Python Programmer certification

**Recommended Next Course:**  
Python Essentials 2



## Requirements

- ASC Alignment: Recommended
- Instructor Training Required: No
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

Developed in collaboration with

# Python Essentials 2

## Course Overview

This course is designed for learners who are already familiar with the essentials of Python, universal computer programming concepts like data types, containers, functions, conditions and loops, and the basics of procedural, structural, and functional programming.

## Benefits

Used by startups and tech giants like Google, Facebook, Netflix, and more, Python with user-friendly, easy-to-read code offers endless possibilities for creating small and large-scale software projects.

## Prepare for Careers

- ✓ Explore the world of programming
- ✓ Design, develop, and improve multi-module computer applications coded in Python
- ✓ Analyze and model real-life problems in Object-Oriented Programming categories
- ✓ Create and develop a programming portfolio

## Course Details

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

**Estimated Time to Completion:** 40 hours

**Prerequisites:** Python Essentials 1, PCEP certification, or equivalent

**Course Delivery:** Self-paced

### Learning Component Highlights:

- ✓ 4 modules and 21 practice labs
- ✓ Interactive activities & quizzes
- ✓ 1 final exam
- ✓ PCAP certification voucher discount

**Course Recognitions:** Digital Badge

**Certification Aligned:** PCAP - Certified Associate in Python Programming certification

**Recommended Next Course:** DevNet Associate



## Requirements

- ASC Alignment: Recommended
- Instructor Training Required: No
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

Developed in collaboration with



# PCAP: Programming Essentials in Python



## 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

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.

## Prepare for Careers

- ✓ Develop fundamental programming skills
- ✓ Prepare for PCEP and PCAP certification exam
- ✓ Build your foundation to pursue more specialized networking and software development skills

## Course Details

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

Estimated Time to Completion: 75 hours

Prerequisites: None

Course Delivery: Instructor-led or Self-paced

Learning Component Highlights:

- ✓ 8 modules of interactive instructional content
- ✓ 30+ practice labs
- ✓ Built-in online tool for labs and practice
- ✓ Quizzes, tests, and final exam

Course Recognitions: Statement of Achievement

Recommended Next Course:  
DevNet Associate

In partnership with



Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



**Certification Aligned**

[PCEP: Certified Entry-Level Python Programmer](#)  
[PCAP: Certified Associate in Python Programming](#)



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No
- Discount Availability: Yes

## Course Overview

Students will learn how interactive web and mobile apps are created with JavaScript programming – and how to design, write, debug, and run their own programs.

## Benefits

JavaScript is a ubiquitous language used across the internet, with billions of lines of code available for reuse and learning from examples. With its easy-to-use interpreter and debugger already installed on internet browsers, running and experimenting with code is fast and effortless, allowing students to learn the language quickly and build a solid foundation for learning other programming languages.

## Explore Opportunities in Technology

- ✓ Develop fundamental programming skills
- ✓ Prepare for JSE certification exam
- ✓ Build your foundation to pursue more specialized networking and software development skills

## Course Details

**Target Audience:** High school, secondary and 2-year college vocational students, IT and non-IT fields university students, career changers

**Estimated Time to Completion:** 40 hours

**Prerequisites:** None

**Course Delivery:** Self-paced

### Learning Component Highlights:

- ✓ 6 modules and 30+ practice and lab activities
- ✓ Interactive quizzes
- ✓ 1 final test

**Course Recognitions:** Digital Badge

**Certification Aligned:** This course aligns to JSE: Certified Entry-Level JavaScript Programmer certification

**Recommended next course:** DevNet Associate



## Requirements

- ASC Alignment: Recommended
- Instructor Training Required: No
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

Developed in collaboration with

# CLA: Programming Essentials in C

## Course Overview

This beginner course introduces the universal concepts of computer programming using the C language, and teaches the syntax, semantics, and data types of the C language.

## Benefits

Build transferable skills. When you learn C, you develop overarching fundamentals for all programming languages. Practice your skills through hands-on labs and write your own programs!

## Prepare for Careers

- ✓ Develop skills for entry-level programming roles
- ✓ Prepare for CLA certification exam
- ✓ Fulfill prerequisites to pursue more advanced programming skills

## Course Details

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

Estimated Time to Completion: 70 hours

Prerequisites: None

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 9 modules of interactive instructional content
- ✓ 80+ practice labs
- ✓ Chapter and final exams

Course Recognitions: Certificate of Completion

Recommended Next Course:  
Internet of Things (IoT) Fundamentals,  
CCNA, NDG Linux Essentials

In partnership with



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No
- Discount Availability: Yes

Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



**Certification Aligned**

[CLA: C Programming Language  
Certified Associate](#)

# CLP: Advanced Programming in C

## Course Overview

This advanced course teaches intermediate to advanced coding 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 (<math.h>, <fenv.h>, <inttypes.h> et al), and network sockets.

## Benefits

Extend your programming knowledge and proficiency. Learn to think harder and deeper about programming concepts.

## Prepare for Careers

- ✓ Develop skills for entry-level programming roles
- ✓ Prepare for CLP certification exam
- ✓ Set yourself up to succeed in jobs related to software development, network engineering, and system administration

## Course Details

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

Estimated Time to Completion: 70 hours

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

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 8 modules of interactive instructional content
- ✓ 18 practice labs
- ✓ Quizzes, chapter and final exams

Course Recognitions: Certificate of Completion

Recommended Next Course:  
Internet of Things (IoT) Fundamentals,  
NDG Linux I

In partnership with



Programming



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No
- Discount Availability: Yes

Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



**Certification Aligned**

[CLP: C Certified Professional Programmer](#)

# CPA: Programming Essentials in C++

## Course Overview

This beginner course introduces the basics of programming in the C++ language and the fundamental notions and techniques used in object-oriented programming.

## Benefits

Build transferable skills. When you learn C, you develop overarching fundamentals for all programming languages. Practice your skills through hands-on labs and write your own programs!

## Prepare for Careers

- ✓ Develop skills for entry-level programming roles
- ✓ Prepare for CPA certification exam
- ✓ Fulfill prerequisites to pursue more advanced programming skills

## Course Details

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

Estimated Time to Completion: 70 hours

Prerequisites: None

Course Delivery: Instructor-led or Self-paced

Learning Component Highlights:

- ✓ 8 modules of interactive instructional content
- ✓ 100+ practice labs
- ✓ Chapter and final exams

Course Recognitions: Certificate of Completion

Recommended Next Course:  
Internet of Things (IoT) Fundamentals,  
NDG Linux Essentials, DevNet Associate

In partnership with



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No
- Discount Availability: Yes

[Quick Links](#)

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



**Certification Aligned**

[CPA: C++ Certified Associate Programmer](#)

# CPP: Advanced Programming in C++

## Course Overview

This advanced course teaches intermediate to advanced coding 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

Extend your programming knowledge and proficiency. Learn to think harder and deeper about programming concepts.

## Prepare for Careers

- ✓ Develop skills for entry-level programming roles
- ✓ Prepare for CPP certification exam
- ✓ Set yourself up to succeed in jobs related to software development, network engineering, and system administration

## Course Details

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

Estimated Time to Completion: 70 hours

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

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 9 modules of interactive instructional content
- ✓ 65 practice labs
- ✓ Chapter and final exams

Course Recognitions: Certificate of Completion

Recommended Next Course:  
CCNP Enterprise, NDG Linux I

In partnership with



Programming



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No
- Discount Availability: Not Applicable

[Quick Links](#)

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



**Certification Aligned**

[CPP: C++ Certified Professional Programmer](#)



# Workshop: Experimenting with REST APIs using Webex Teams

## Course Overview

This workshop introduces the basic competencies needed to create applications and automate tasks using REST APIs, the most popular architecture for software integration in IT.

## Benefits

Learn the value of the REST APIs architecture, practice Python programming skills, and perform basic software integration and automation using real-world APIs on an enterprise collaboration platform (Webex Teams).

## Prepare for Careers

- ✓ Emerging Technologies Workshops are short, hands-on experiences to quickly develop new skills for today's job market
- ✓ Participate in relevant professional communities of practice (Cisco DevNet, GitHub, and Stack Overflow)

## Course Details

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

Estimated Time to Completion: 8 hours

Prerequisites: Basic programming

Course Delivery: Instructor-led

Learning Component Highlights:

- ✓ 2 chapters and 9 practice labs
- ✓ 13 interactive activities
- ✓ 1 final exam

Course Recognitions: Certificate of Completion

Recommended Insertion Points:

PCAP Programming Essentials in Python,  
IoT Fundamentals: Connecting Things

Other Insertion Points:

IT Essentials, CCNA: Introduction to Networks



Infrastructure Automation

## Requirements & Resources

- ASC Alignment Required: Yes
- Instructor Training Required: No (Self-paced training option available)
- Physical Equipment Required: Internet access to Cisco DevNet Labs and APIs (Free)
- Discount Availability: Not Applicable

[Quick Links](#)

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)



**DevNet Sandbox**

Practice running code on live network infrastructure

# Digital Literacy



# Get Connected

## 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 Information Technology (IT).

## Benefits

The digital world is upon us both personally and professionally. Gain essential skills like basic computer skills, such as how to use a computer, connect devices, and access search, email, and social media.

## Explore Opportunities in Technology

- ✓ Develop your digital basics
- ✓ Start exploring the many career possibilities these skills can open up for you

## Course Details

Target Audience: Secondary and general audience new to IT

Estimated Time to Completion: 30 hours

Prerequisites: None

Course Delivery: Instructor-led or Self-paced

Learning Component Highlights:

- ✓ 5 chapters
- ✓ Illustrations and narrations guide students through topics
- ✓ Interactive activities, videos, & quizzes

Course Recognitions: Certificate of Completion

Recommended Next Course:  
IT Essentials



OS & IT



## Requirements & Resources

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No
- Discount Availability: Not Applicable

Quick Links

[Course Page](#)

[Course Demos](#)

(Available for select courses)

[List of All Courses](#)

(Includes language availability)

**Career Advice**

[Tips for getting started in your career](#)

# Introduction to IoT and Digital Transformation

## Course Overview

The course provides learners with an engaging, exploratory view of the Internet of Things and highlights how Digital Transformation impacts organizations, businesses, governments, industries, and our daily lives.

## Benefits

Learners discover how IoT, along with emerging technologies such as data analytics, artificial intelligence and cybersecurity, are digitally transforming industries and expanding career opportunities. Learners understand the importance of Intent-Based Networking using a software-driven approach and machine learning to be able to connect and secure tens of billions of new devices with ease.

## Explores Opportunities in Technology

- ✓ Develops digital basics
- ✓ Explores career opportunities in the new emerging technologies landscape

[View Course](#)

## Course Details

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

**Estimated Time to Completion:** 6 hours

**Prerequisites:** None

**Course Delivery:** Instructor-guided or Self-paced

### Learning Component Highlights:

- ✓ 6 modules
- ✓ 16 practice lab activities
- ✓ 7 Cisco Packet Tracer activities
- ✓ 12 videos
- ✓ Knowledge checks and module quizzes
- ✓ Final exam

**Course Recognitions:** Digital Badge

**Recommended Insertion Points:** A great start for any learning path, and a way to introduce digital transformation before or during any Career course.



## Requirements

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No

# Professional Skills



# English For IT 1 and 2

## Course Overview

The course teaches English language in the context of IT. It covers grammar, vocabulary, reading, and listening skills with some limited writing—focusing on essential terminology and phrases used in technology. The learner will gain upper-intermediate level language skills and prepare for the English for IT B2 / GSE 59-75 certification exam.

## Benefits

In a survey of 500 IT employers, 89% said they require employees to have at least some proficiency in English. (Source: Indeed, "Why English Proficiency is Important in the Tech Industry," 2020). Teaching students the essentials will help them land a job.

## Develop Professional Skills

- ✓ Students learn to express themselves accurately and confidently with digestible grammar videos
- ✓ Teach how to incorporate idioms into everyday conversations
- ✓ Develop language skills in a fun and interactive way with exercises that deepen understanding.

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## Course Details

**Target Audience:** Late-stage K12 and Higher Education students and IT professionals early in their careers

**Estimated Time to Completion:** 40-50 hours per course

**Prerequisites:** Learners should be at B1-level English (lower intermediated)

**Course Delivery:** Instructor-led or Self-paced

### Learning Component Highlights:

11 listening videos, 29 grammar videos, 6 idiom videos, 3 interview videos  
70+ grammar and vocabulary exercises

**Course Recognitions:** Digital Badge

**Certification Alignment:** Completing both courses align with the English for IT B2 / GSE 59-75 certification exam

**Recommended Next Course:** English for IT 2

[skillsforall.com](https://skillsforall.com)



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Recommended
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

# Engaging Stakeholders for Success

## Course Overview

In this course, your students will learn to identify, prioritize, and engage with stakeholders. They will learn essential personal and social skills through practical, actionable learnings in the context of authentic work scenarios. This course emphasizes the critical role stakeholders play in every project and provides tools that enable students to effectively identify, prioritize and engage with stakeholders for success.

## Benefits

Teaching your students how to engage with stakeholders is critical to having a successful and long professional career.

## Develop Professional Skills

- ✓ Help students gain stakeholder skills that are transferable to any industry
- ✓ Teach about common pitfalls when working with stakeholders
- ✓ Support your students in practicing stakeholder interview techniques

## Course Details

**Target Audience:** High school, secondary and 2-year college vocational students, IT and non-IT fields university students, and career changers

**Estimated Time to Completion:** 3 hours

**Prerequisites:** None

**Course Delivery:** Instructor-led or Self-paced

**Learning Component Highlights:**

- ✓ 3 modules
- ✓ 24 Interactive activities
- ✓ 1 final test

**Course Recognitions:** Digital Badge



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Recommended
- Basic Equipment: Computer/Mobile Device and Internet
- Additional Equipment Required: No

## Course Overview

This course covers entrepreneurship fundamentals, including the entrepreneurial perspective, identifying opportunities, and crafting your entrepreneurial story. Offering a solid foundation for anyone interested in developing entrepreneurial skills.

## Benefits

The demand for well-rounded candidates continues to grow. Teaching your students entrepreneurship fundamentals can help them develop a solutions-oriented approach to challenges in the workplace and in the global market.

## Explores Opportunities in Technology

- ✓ Develop skills for Entrepreneurial Specialist job roles
- ✓ Offer learners anywhere a launch point to analyzing entrepreneurial opportunity and creating successful strategies in the market
- ✓ Build entrepreneurial skills through cutting edge entrepreneur frameworks including lean canvas, real-world examples and extended branching activities

## Course Details

**Target Audience:** High School, Secondary or vocational school and college/university students, general audience

**Estimated Time to Completion:** 20 hours

**Recommended Preparation:** None

**Course Delivery:** Instructor-led or Self-paced

### Learning Component Highlights:

- ✓ 15 modules & quizzes
- ✓ 4 extended branching activities
- ✓ Interactive activities & quizzes
- ✓ 1 final exam

**Course Recognitions:** Digital Badge

[skillsforall.com](https://skillsforall.com)



## Requirements

- ASC Alignment: Recommended
- Instructor Training: Recommended
- Basic Equipment: Computer/Mobile Devices and Internet
- Additional Equipment Required: No



# Cisco Packet Tracer



# Getting Started with Cisco Packet Tracer

## Course Overview

This short on-ramp course introduces Cisco Packet Tracer, an innovative network simulation and visualization tool. Teaches how to download Cisco Packet Tracer, navigate the simulation environment, and practice building a network using everyday examples.

## Benefits

Provides valuable tips, best practices, and builds confidence using this powerful tool offered in many courses.

## Explore Opportunities in Technology

- ✓ Installs the powerful simulation and visualization tool.
- ✓ Practice networking, cybersecurity, and IoT skills by using Cisco Packet Tracer.

[View Course](#)

## Course Details

**Target Audience:** General audience

**Estimated Time to Completion:** 2 hours

**Prerequisites:** None

**Course Delivery:** Instructor-guided or Self-paced

### Learning Component Highlights:

- ✓ 2 modules
- ✓ 1 Cisco Packet Tracer Tutored Activity (PTTA)
- ✓ 1 Cisco Packet Tracer Activity
- ✓ 1 assessment

**Course Recognitions:** SFA Achievement

### Recommended Next Courses:

- ✓ Exploring Networking with Cisco Packet Tracer
- ✓ Exploring IoT with Cisco Packet Tracer



## Requirements

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No

# Exploring Networking with Cisco Packet Tracer

## Course Overview

In this course, learners create and explore a small office network using Cisco Packet Tracer. Teach how to connect and configure devices in a network, including wireless devices, and how to manage and monitor a network.

## Benefits

Offers valuable tips and practices networking skills using Cisco Packet Tracer.

## Explore Opportunities in Technology

- ✓ Teach how to connect and configure devices in a small office network using Packet Tracer
- ✓ Show how packets travel across a network using Simulation Mode
- ✓ Explore how a network controller can be used to manage and configure a network

[View Course](#)

## Course Details

**Target Audience:** General audience

**Estimated Time to Completion:** 3 hours

**Prerequisites:** Getting Started with Cisco Packet Tracer

**Course Delivery:** Instructor-guided or Self-paced

### Learning Component Highlights:

- ✓ 2 modules
- ✓ 1 Cisco Packet Tracer Tutored Activity (PTTA)
- ✓ 7 Cisco Packet Tracer Activity
- ✓ 1 assessment

**Course Recognitions:** SFA Achievement

### Recommended Next Course:

- ✓ Exploring IoT with Cisco Packet Tracer



## Requirement

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No

# Exploring IoT with Cisco Packet Tracer

## Course Overview

This course teaches how to set up a smart home network using Cisco Packet Tracer, how to add IoT devices to a home network, and then connect, configure, and monitor them. Learners become more familiar with IoT devices and how they can be programmed. Learners will create their own IoT device and use it in a simulated smart home network.

## Benefits

Practice IoT (Internet of Things) skills using Cisco Packet Tracer.

## Explores Opportunities in Technology

- ✓ Connect and monitor devices in a smart home network.
- ✓ Modify and monitor environment elements that may affect IoT devices.
- ✓ Create and modify an IoT Thing in Cisco Packet Tracer.

[View Course](#)

## Course Details

**Target Audience:** General audience

**Estimated Time to Completion:** 3 hours

**Prerequisites:** Getting Started with Cisco Packet Tracer course

**Course Delivery:** Instructor-guided or Self-paced

**Learning Component Highlights:**

- ✓ 2 modules
- ✓ 6 Cisco Packet Tracer Activity
- ✓ 1 assessment

**Course Recognitions:** SFA Achievement

**Recommended Next Course:**

Exploring Networking with Cisco Packet Tracer



## Requirements

- ASC Alignment Required: No
- Instructor Training Required: No
- Physical Equipment Required: No

# Practice

Hands-on tools & interactive experiences  
to build skills, not just knowledge



# Hands-On Practice

A key pillar of Networking Academy



Motivate your students with exciting experiences that make learning very real



Accelerate and optimize each student's path to career-ready skills



Build student confidence: "I can do this!"

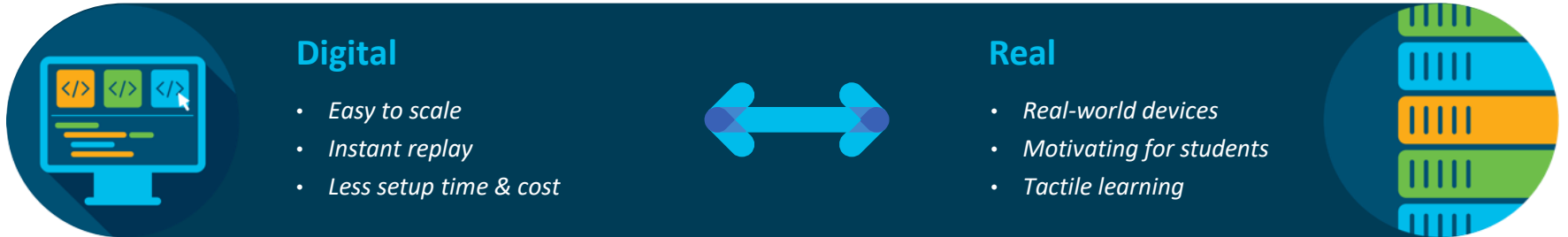


Developed by learning scientists & subject-matter experts



# A Suite of Lab Environments

Options ranging from simulation to physical hardware



Simulation with  
Packet Tracer



Virtualized  
Equipment



Virtual  
Machines



Remote  
Equipment



Physical  
Hardware

# Cisco Packet Tracer

## Overview

Cisco Packet Tracer is a powerful simulation and visualization learning environment. Practice building simple and complex networks across a variety of devices and extend beyond routers and switches.

## Benefits

Teach complex concepts without complex hardware. Leverage the versatility of simulation for lectures, labs, games, homework, assessments, competitions, and distance learning.

## Build Skills for Success

- ✓ Quickly try, experiment, learn, repeat
- ✓ Practice teamwork, critical thinking and creative problem-solving skills
- ✓ Integration with online assessment engine prepares students for hands-on assessments

## Details

Use it to:

- Create and configure your own networks
- Practice cabling your devices in the rack with Physical Mode
- See how packets travel through your network with Simulation Mode
- Program your own IoT smart solution
- And more!

How to Access:

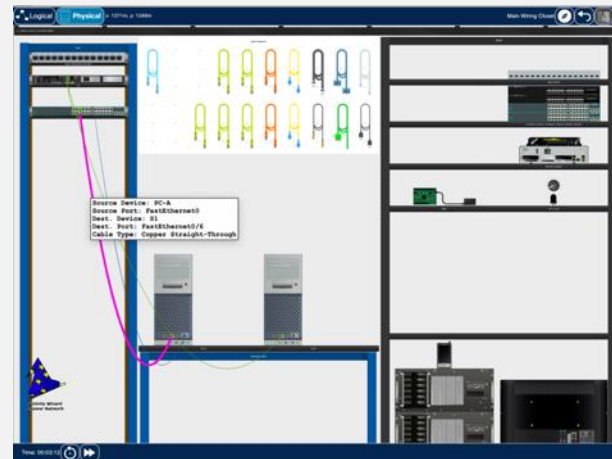
Enroll in Getting Started with Cisco Packet Tracer course to download desktop version

Courses that use Cisco Packet Tracer include:

- Networking Essentials
- Cybersecurity Essentials
- IT Essentials
- CCNA
- CyberOps Associate
- DevNet Associate
- CCNP Enterprise
- Introduction to Internet of Things (IoT)
- IoT Security
- Network Security



Practice



## Requirements & Resources

- Cost: Free

Quick Links

[Getting Started with Cisco Packet Tracer short courses](#)

[Teaching with Cisco Packet Tracer](#)

[Cisco Packet Tracer FAQs](#)



Hands-on tools & interactive experiences to build skills, not just knowledge



# Virtual Machines (VM)

## Overview

Virtual machines are virtual environments that emulate a computer system. These self-contained virtual environments let students explore systems to the breaking point without causing actual damage.

## Benefits

Experiment and explore in a low-risk environment. Deliberately test security threats and malware in a safe environment.

## Build Skills for Success

- ✓ Hands-on cybersecurity practice
- ✓ Students become familiar with virtual machines to prepare for on-the-job skills

## Details

Use it to:

- Teach virtual machine technology
- Simulate real-world cybersecurity threat scenarios
- Create opportunities for ethical hacking, security monitoring, analysis, and resolution

How to Access:

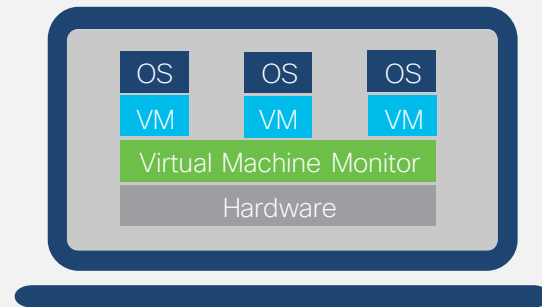
Free software download from Oracle VirtualBox  
<https://www.oracle.com/virtualization/technologies/vm/downloads/virtualbox-downloads.html>

Courses that use Virtual Machines include:

- CCNA
- CyberOps Associate
- Emerging Technologies Workshop: Model-Driven Programmability
- DevNet Associate



Practice



## Requirements & Resources

- Cost: Free



Hands-on tools & interactive experiences to build skills, not just knowledge

# Remote Equipment: NDG NETLAB+

## Overview

Connect to real hardware through the web. Available through Networking Academy partnerships:

NDG NETLAB+ provides cloud-based, remote access to networking equipment and PCs.

## Benefits

Reduce your setup time for complex labs with on-demand remote access to lab equipment when you need it.

## Build Skills for Success

- ✓ Provide practice opportunities for students to complete labs from anywhere
- ✓ Supplement your lab offerings when physical hardware is not available at your institution

## Details

Use it to:

- Access remote IT equipment through a web browser
- Reduce your lab setup time

How to Access:

Learn more at the NDG NETLAB+ page for Networking Academy.

<https://www.netdevgroup.com/content/cnap/>

Courses that use Remote Equipment include:

- CCNA
- CCNP Enterprise
- IT Essentials
- CyberOps Associate
- Network Security



Practice

In partnership with



NETLAB+



CCNA Cyber Ops



IT Essentials



CCNA Routing And Switching

## Requirements & Resources

- Cost: Yes



Hands-on tools & interactive experiences to build skills, not just knowledge

# Remote Equipment: DevNet Sandbox

## Overview

Connect to real hardware through the web. Available through Networking Academy partnerships:

Cisco DevNet Sandbox offers packaged labs for software development, testing APIs, training, hackathons, and more.

## Benefits

Reduce your setup time for complex labs with on-demand remote access to lab equipment when you need it.

## Build Skills for Success

- ✓ Students get experience running their code against live network infrastructure
- ✓ Practice working in a sandbox environment just like on-the-job software developers

## Details

Use it to:

- Interact with live network infrastructure and programmable devices using real-world Application Programming Interfaces (APIs)

How to Access:

Learn more at the Cisco DevNet Sandbox page <https://developer.cisco.com/site/sandbox/>

Courses that use Remote Equipment include:

- Workshop: Experimenting with REST APIs
- Workshop: Model-Driven Programmability
- DevNet Associate



Practice

**DEVNET** [DevNet Sandbox](#)



## Requirements & Resources

- Cost: Free



Hands-on tools & interactive experiences to build skills, not just knowledge

# Physical Hardware

## Overview

Bring the real world inside the classroom so students can practice physical, sensory skills. Seeing and exploring with real equipment makes the abstract more tangible.

## Benefits

Excite learners to consider career pathways in networking technology, and increase retention through tactile learning.

## Build Skills for Success

- ✓ Provide hands-on practice with the same devices found in the work environment
- ✓ Students gain real experience even before on-the-job training
- ✓ Build transferable, career-ready skills

## Details

How to Access:

1. Contact a local Cisco Reseller Partner for pricing and order fulfillment. Use [Partner Finder](#) to find one near you.
2. Consider working with an Academy Support Center (ASC) who can help you choose the best way to secure equipment needed for your location. They may offer loaner equipment or used equipment options

Courses that use Physical Hardware include:

- Networking Essentials
- IT Essentials
- CCNA
- CCNP Enterprise
- Network Security
- IoT Security



Practice



## Requirements & Resources

- Cost: Yes

## Discounts

Equipment discounts are available for Networking Academy institutions. Available for Cisco equipment needed for Networking Academy courses and labs when purchased through a Cisco Reseller Partner.



Hands-on tools & interactive experiences to build skills, not just knowledge

# Language Availability



# Skills for All Course Languages

	Arabic	Azerbaijani	Chinese-Simplified	Chinese-Traditional	Croatian	Dutch	English	French	Georgian	German	Greek	Hebrew	Hindi	Hungarian	Indonesian	Italian	Japanese	Kazakh	Korean	Polish	Portuguese-Brazil	Portuguese-Portugal	Romanian	Russian	Spanish	Turkish	Ukrainian	
<b>CYBERSECURITY</b>																												
Introduction to Cybersecurity	✓					✓	✓	✓		✓						✓				✓	✓					✓		✓
Cybersecurity Essentials							✓	✓													✓					✓		
Endpoint Security							✓	✓													✓					✓		✓
Network Defense							✓	✓													✓					✓		✓
Cyber Threat Management							✓	✓													✓					✓		✓
Ethical Hacker							✓																					
<b>NETWORKING</b>																												
Networking Essentials							✓																			✓		
Networking Basics							✓	✓		✓											✓					✓		✓
Networking Devices and Initial Configuration							✓	✓													✓					✓		✓
Network Addressing and Basic Troubleshooting							✓														✓					✓		
Network Support and Security							✓																			✓		

# Skills for All Course Languages

	Arabic	Azerbaijani	Chinese-Simplified	Chinese-Traditional	Croatian	Dutch	English	French	Georgian	German	Greek	Hebrew	Hindi	Hungarian	Indonesian	Italian	Japanese	Kazakh	Korean	Polish	Portuguese-Brazil	Portuguese-Portugal	Romanian	Russian	Spanish	Turkish	Ukrainian	
OPERATING SYSTEMS & IT																												
Computer Hardware Basics							✓	✓													✓					✓		
Operating System Basics							✓																					
DATA SCIENCE																												
Introduction to Data Science							✓																			✓		
Data Analytics Essentials							✓																					
PROGRAMMING																												
JavaScript Essentials 1							✓																					
Python Essentials 1							✓														✓					✓		✓
Python Essentials 2							✓																			✓		
DIGITAL LITERACY																												
Introduction to IoT and Digital Transformation						✓	✓			✓																✓		✓

# Skills for All Course Languages

	Arabic	Azerbaijani	Chinese-Simplified	Chinese-Traditional	Croatian	Dutch	English	French	Georgian	German	Greek	Hebrew	Hindi	Hungarian	Indonesian	Italian	Japanese	Kazakh	Korean	Polish	Portuguese-Brazil	Portuguese-Portugal	Romanian	Russian	Spanish	Turkish	Ukrainian	
<b>PROFESSIONAL SKILLS</b>																												
Engaging Stakeholders for Success							✓																					
English for IT 1							✓																					
English for IT 2							✓																					
Discovering Entrepreneurship							✓																					
<b>CISCO PACKET TRACER</b>																												
Getting Started with Cisco Packet Tracer	✓						✓	✓													✓					✓		✓
Exploring Networking with Cisco Packet Tracer							✓																			✓		
Exploring IoT with Cisco Packet Tracer							✓																			✓		



# NetAcad.com Course Languages

	Arabic	Azerbaijani	Chinese-Simplified	Chinese-Traditional	Croatian	Dutch	English	French	Georgian	German	Greek	Hebrew	Hindi	Hungarian	Indonesian	Italian	Japanese	Kazakh	Korean	Polish	Portuguese-Brazil	Portuguese-Portugal	Romanian	Russian	Spanish	Turkish	Ukrainian
<b>NETWORKING</b>																											
Networking Essentials (version 1.x or 2.x)*	✓		✓					✓		✓							✓				✓			✓	✓		
CCNA: Introduction to Networks	✓		✓	✓			✓	✓		✓				✓		✓	✓			✓	✓			✓	✓	✓	✓
CCNA: Switching, Routing, and Wireless Essentials	✓		✓	✓			✓	✓		✓				✓		✓	✓			✓	✓			✓	✓	✓	✓
CCNA: Enterprise Networking, Security, and Automation	✓		✓	✓			✓	✓		✓						✓	✓			✓	✓			✓	✓	✓	✓
CCNP Enterprise: Core Networking							✓																				
CCNP Enterprise: Advanced Routing							✓																				
<b>OS &amp; IT</b>																											
Get Connected			✓	✓			✓	✓		✓			✓			✓					✓	✓			✓		
IT Essentials	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓	✓		✓	✓		✓	✓	✓	✓	✓
NDG Linux Unhatched							✓	✓		✓						✓					✓				✓		
NDG Linux Essentials							✓																		✓		
NDG Linux I and II							✓																				

# NetAcad.com Course Languages

	Arabic	Azerbaijani	Chinese-Simplified	Chinese-Traditional	Croatian	Dutch	English	French	Georgian	German	Greek	Hebrew	Hindi	Hungarian	Indonesian	Italian	Japanese	Kazakh	Korean	Polish	Portuguese-Brazil	Portuguese-Portugal	Romanian	Russian	Spanish	Turkish	Ukrainian
<b>PROGRAMMING</b>																											
PCAP - Programming Essentials in Python							✓													✓		✓		✓	✓	✓	
JavaScript Essentials 1 (JSE)							✓																		✓		
CLA: Programming Essentials in C							✓																				
CLP: Advanced Programming in C							✓																				
CPA: Programming Essentials in C++							✓																				
CPP: Advanced Programming in C++							✓																				
<b>PROGRAMMABLE INFRASTRUCTURE</b>																											
DevNet Associate			✓	✓			✓	✓								✓									✓		✓
Emerging Technologies Workshop - Experimenting with REST APIs using Webex Teams							✓																				
Emerging Technologies Workshop - Model Driven Programmability							✓																				
IoT Fundamentals: Connecting Things*			✓				✓	✓		✓															✓		✓
IoT Fundamentals: Big Data & Analytics*			✓				✓	✓																	✓		
IoT Fundamentals: Hackathon Playbook*							✓																		✓		✓

# NetAcad.com Course Languages

	Arabic	Azerbaijani	Chinese-Simplified	Chinese-Traditional	Croatian	Dutch	English	French	Georgian	German	Greek	Hebrew	Hindi	Hungarian	Indonesian	Italian	Japanese	Kazakh	Korean	Polish	Portuguese-Brazil	Portuguese-Portugal	Romanian	Russian	Spanish	Turkish	Ukrainian
<b>CYBERSECURITY</b>																											
Introduction to Cybersecurity (version 2.x)*	✓		✓			✓		✓	✓	✓	✓	✓			✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Cybersecurity Essentials (version 1.x)*		✓	✓					✓	✓	✓							✓				✓	✓		✓	✓		✓
CyberOps Associate			✓				✓	✓													✓				✓		
Network Security							✓														✓						
IoT Security*			✓				✓																				

# Quick Links

- [netacad.com](https://netacad.com)
- [skillsforall.com](https://skillsforall.com)
- [Getting Started for Educators](#)
- [Cisco Packet Tracer](#)



