The Learning Experience @ Cisco Networking Academy

September 2017

# Digitale Versnelling Nederland

Digitale Versnelling NL

"Cisco's Country Digitization Acceleration Strategy is a long-term partnership with national leadership, industry & academia. By accelerating the national digitization agenda, the country will grow GDP, create new jobs and provide innovation and education across public & private sectors."

Prioriteiten & Focus
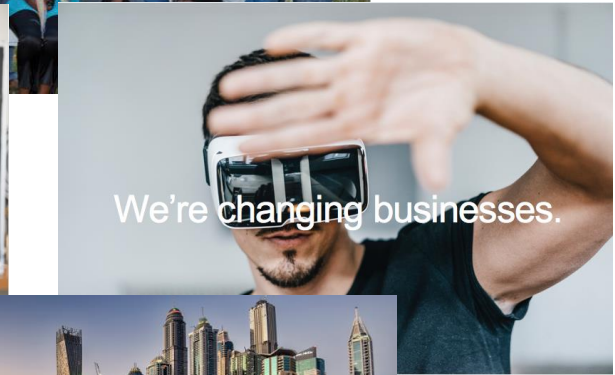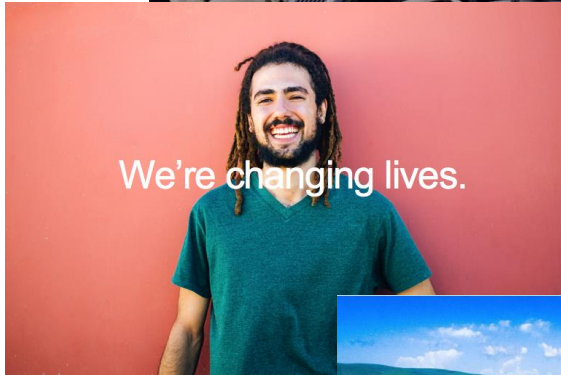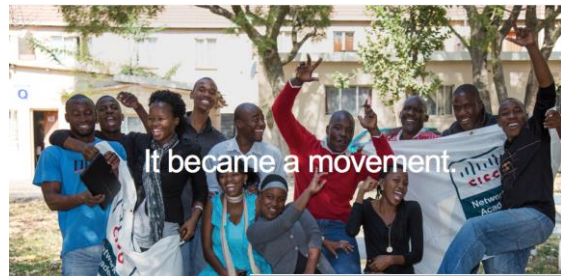
- Flexibel
- Focus
- Impact
- Relevantie
- 4 Jaar Horizon
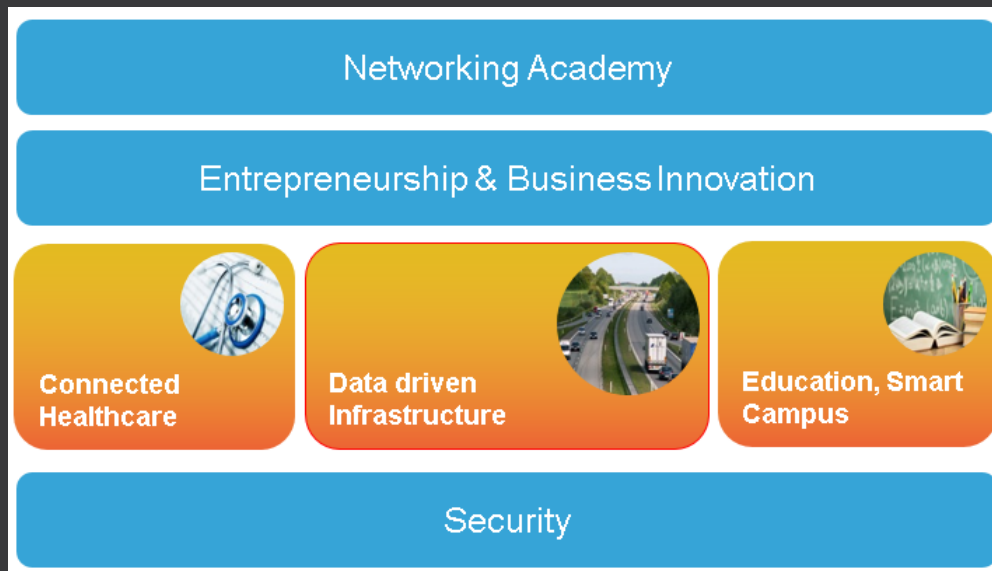
CISCO NETWORKING ACADEMY.
20 Years of Changing Worlds.

Since it's founding 20 years ago, Cisco Networking Academy has had a world-changing impact.

On the lives and career prospects of its students.

On the Cisco employees, educators and academies who support it.

On the businesses who hire and promote our students.

On the local communities and economies they drive with their innovations and ambition.

On the world at large.

ECONOMIES

COMMUNITIES

BUSINESS

EDUCATIONAL

PERSONAL

It began as an act of community.

It became a movement.

We're changing lives.

We're changing education.

We're changing businesses.

We're changing economies.

For 20 years, we've been changing worlds.
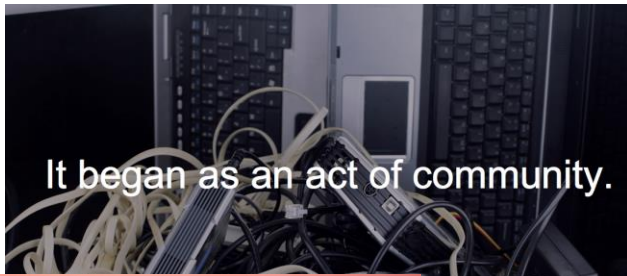
The Skills-to-Jobs Learning Experience

What Students Learn

- Networking
- Security and Cybersecurity
- IoT
- Programming
- Linux and General IT

How Students Learn

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

How Students Think

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

| Courses in 20+ Languages | Hands-On | Flexible Delivery | Supports Personalized Instruction | Simulations | Hackathons |

Our Portfolio Builds Interest and Competency

Exploratory
Consider a career in technology

Exposure

Foundational
Prepare for a technology career

Career-Ready
Step into your technology career
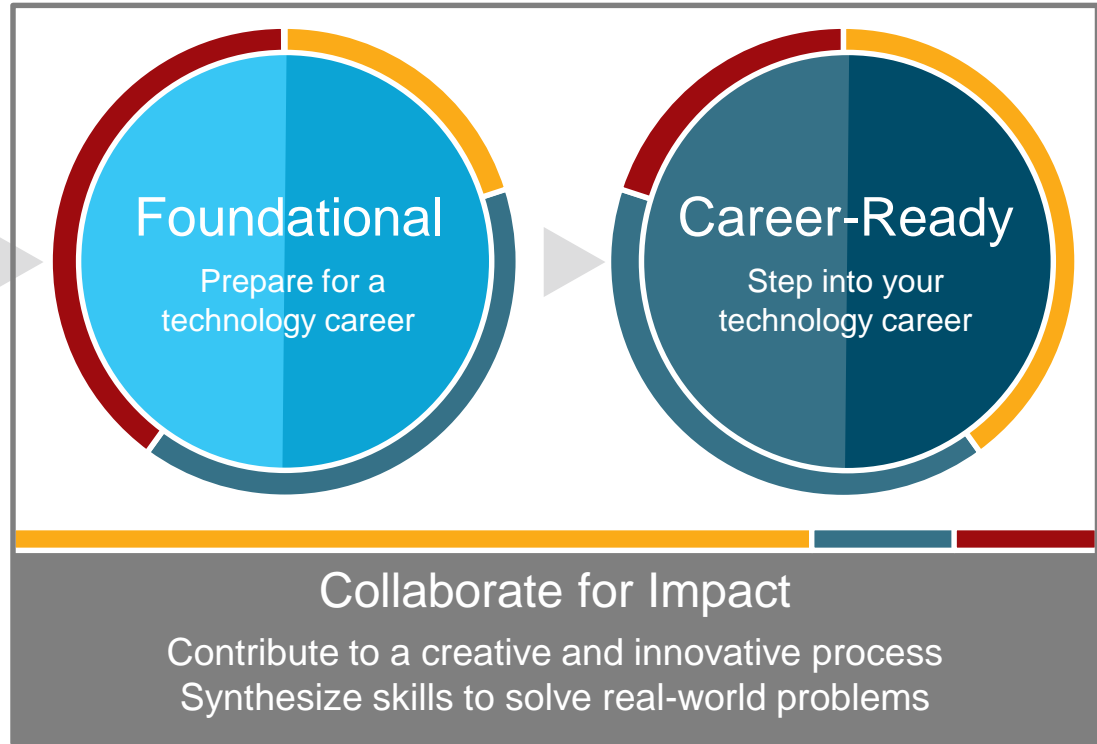
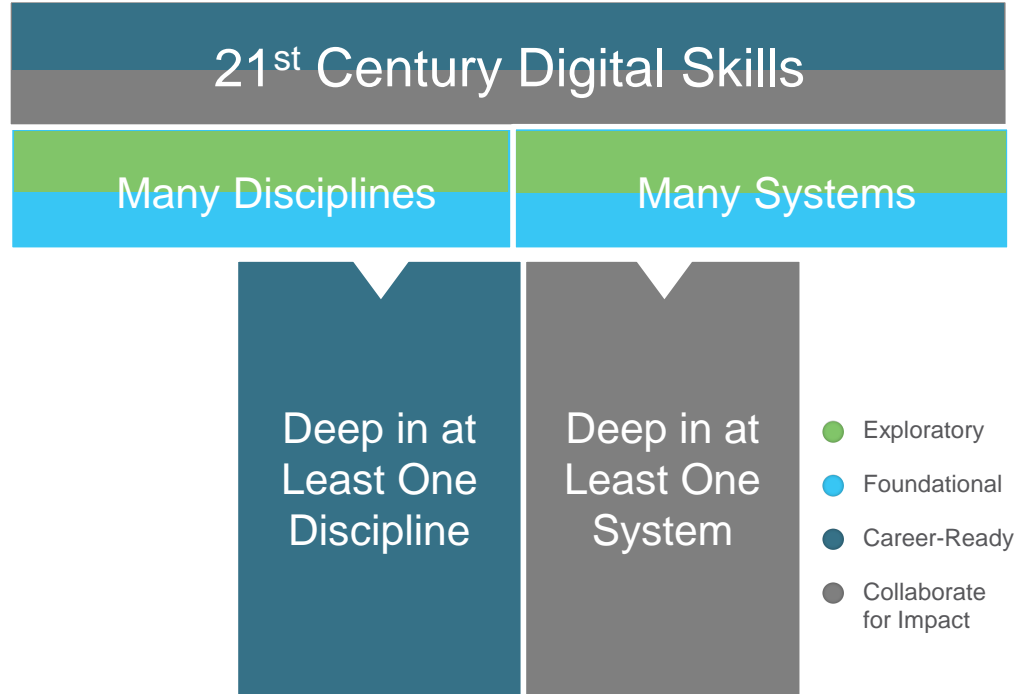**Collaborate for Impact**
Contribute to a creative and innovative process
Synthesize skills to solve real-world problems

The Networking Academy Learning Portfolio Approach

21st Century Digital Skills

Many Disciplines	Many Systems
Deep in at Least One Discipline	Deep in at Least One System

- 🟢 Exploratory
- 🔵 Foundational
- ⬤ Career-Ready
- ⬤ Collaborate for Impact

The Networking Academy Learning Portfolio

Current & Planned

- ✅ Aligns to Certification
- 👤 Instructor Training required
- 🏃 Self-paced

* Available within 12 months

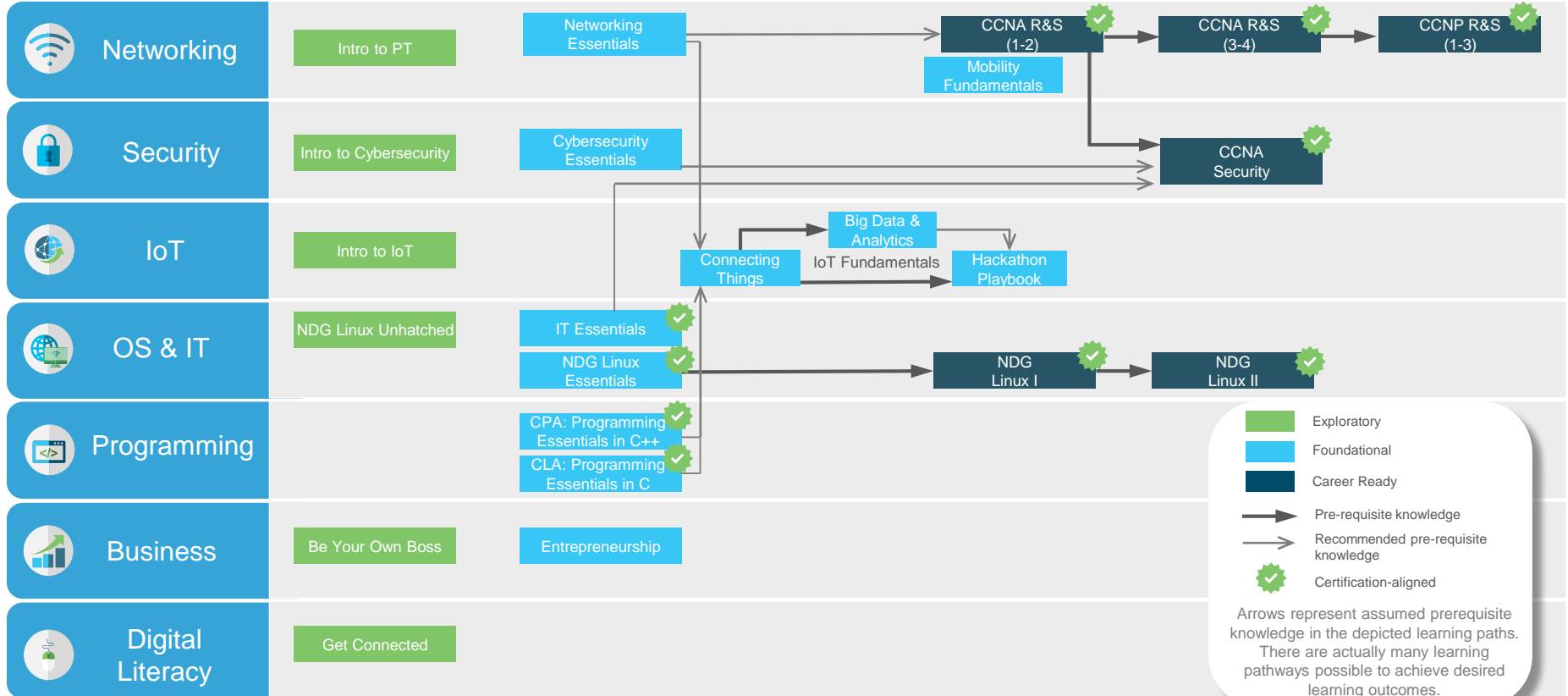|	Exploratory	Foundational	Career-Ready
Collaborate for Impact		🏃 **Introduction to Packet Tracer** **Packet Tracer** **Hackathons** **Prototyping Lab** **NetRiders** **Internships**	
Networking		👤 **Networking Essentials** 🏃 **Mobility Fundamentals**	👤✅ **CCNA R&S:** Introduction to Networks, R&S Essentials, Scaling Networks, Connecting Networks 👤✅ **CCNP R&S:** Switch, Route, TShoot **Emerging Tech Workshop:** Network Programmability*
Security	🏃 **Introduction to Cybersecurity**	🏃 **Cybersecurity Essentials** **IoT Security***	👤✅ **CCNA Security** 👤✅ **CCNA Cyber Ops***
IoT	🏃 **Introduction to IoT**	**IoT Fundamentals:** 👤 Connecting Things, Big Data & Analytics Hackathon Playbook	
OS & IT	🏃 **NDG Linux Unhatched**	🏃✅ **NDG Linux Essentials** ✅ **IT Essentials**	✅ **NDG Linux I** ✅ **NDG Linux II**
Programming		✅ **CLA: Programming Essentials in C** ✅ **CPA: Programming Essentials in C++** **PCA: Programming Essentials in Python*** **Emerging Tech Workshop:** Collaboration / Spark API*	✅ **CLP: Advanced Programming in C*** ✅ **CPP: Advanced Programming in C++***
Business	🏃 **Be Your Own Boss**	🏃 **Entrepreneurship**	
Digital Literacy	🏃 **Get Connected**		

Sample Job Titles

- Technical Support
- IT Field Service Technician
- Help Desk Technician

- Mobile Application Support
- Network Support Technician
- Network Analyst

- Network Technician
- Support Engineer
- Network Administrator

- Entry-Level Network Engineer
- Linux Administrator
- Cyber Ops Analyst

- Level II Network Engineer
- Network Designer

Networking

Intro to PT → Networking Essentials → CCNA R&S (1-2) ✓ → CCNA R&S (3-4) ✓ → CCNP R&S (1-3) ✓

Mobility Fundamentals

Security

Intro to Cybersecurity → Cybersecurity Essentials → CCNA Security ✓

IoT

Intro to IoT → Connecting Things → Big Data & Analytics → Hackathon Playbook

IoT Fundamentals

OS & IT

NDG Linux Unhatched → IT Essentials ✓

NDG Linux Essentials ✓ → NDG Linux I ✓ → NDG Linux II ✓

Programming

CPA: Programming Essentials in C++ ✓

CLA: Programming Essentials in C ✓

Business

Be Your Own Boss → Entrepreneurship

Digital Literacy

Get Connected

Legend

- Exploratory
- Foundational
- Career Ready
- → Pre-requisite knowledge
- → Recommended pre-requisite knowledge
- ✓ Certification-aligned

Arrows represent assumed prerequisite knowledge in the depicted learning paths. There are actually many learning pathways possible to achieve desired learning outcomes.

Networking Professional

As major industries migrate their infrastructure to take full advantage of IoT, the role and skills required of a networking professional are evolving and more vital than ever because the network connects everything.

Sample Titles: Networking Technician, Network Analyst, Network Administrator, Network Engineer

Typical Workplace

- Office
- Customer site
- Home

Company Size and Type

- Medium to large enterprises
- Network service providers
- Tech support centers

Personality Type

- Problem-solver
- Always learning
- Like working with others

Strengths

- Strong balance of technical, teamwork and communication skills

Education Level

- 2-year college to 4-year college

Certifications
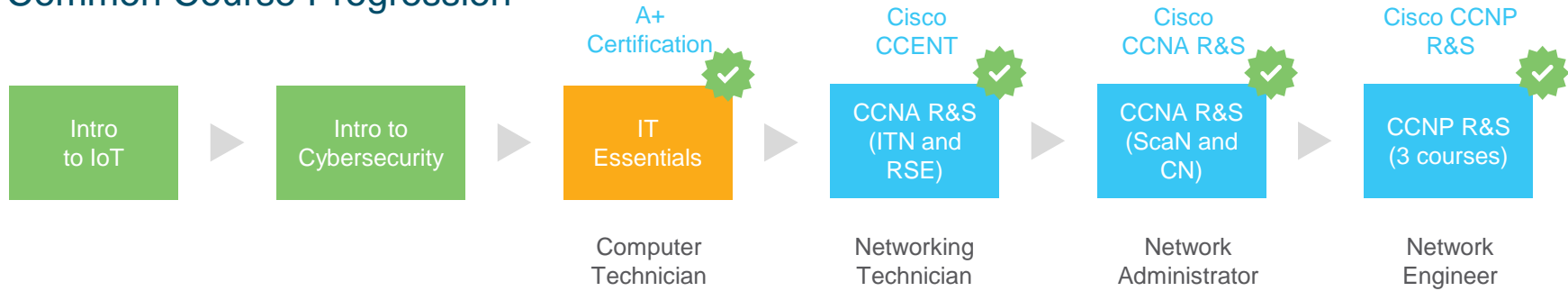
- CCENT, CCNA R&S, CCNP R&S

Learn more at:
NetAcad.com
NetAcad Group LinkedIn
NetAcadAdvantage

Networking Professional

Common Course Progression

Intro to IoT	→	Intro to Cybersecurity	→	A+ Certification IT Essentials ✔	→	Cisco CCENT CCNA R&S (ITN and RSE) ✔	→	Cisco CCNA R&S CCNA R&S (ScaN and CN) ✔	→	Cisco CCNP R&S CCNP R&S (3 courses) ✔
				Computer Technician		Networking Technician		Network Administrator		Network Engineer

Complementary Learning Activities

Expand Your Knowledge

- Networking Essentials (possible alternate to IT Essentials)
- Cybersecurity Essentials
- NDG Linux Essentials
- CPA: Programming Essentials in C++ ✔
- Career and Networking Technology Webinars

IoT Fundamentals
- Connecting Things
- Big Data and Analytics
- Hackathon Playbook

Collaborate for Impact

- Cisco NetRiders Competition
- Cisco Prototyping Lab
- Internships
- NetAcad Advantage
- Hackathons

✔ Certification

Security Professional

As more people and things are connected to the network, security professionals are in high demand to develop and implement security infrastructure, recognize threats and vulnerabilities to networks, and mitigate security threats.

Sample Titles: Security Administrator, Security Engineer, Cyber Operations Specialist

Typical Workplace

- Office working in teams

Company Size and Type

- Enterprise
- Service Provider (Medium Business if also have CCNA R&S cert)

Personality Type

- Creative investigator
- Always learning
- Likes working with others

Strengths

- Strong balance of technical, teamwork and communication skills

Education Level

- 2-year college to 4-year college
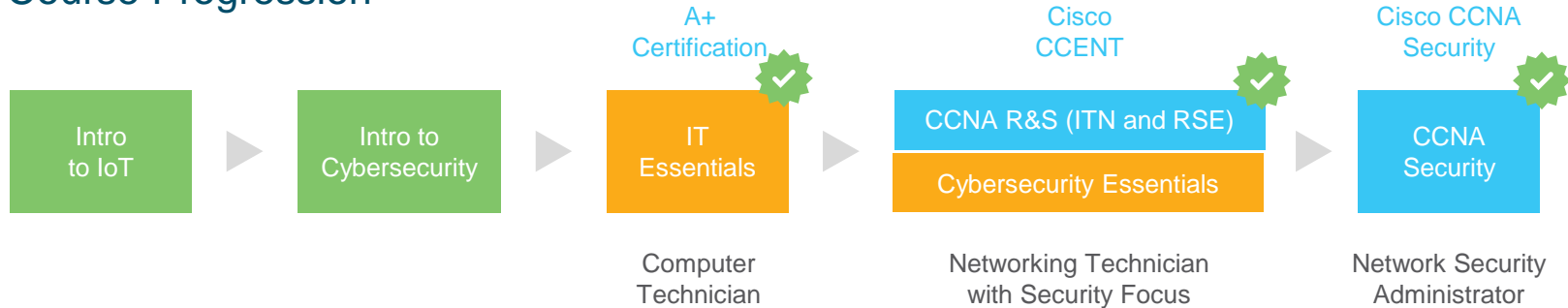
Certifications

- CCNA Security

Learn more at:
NetAcad.com
NetAcad Group LinkedIn
NetAcadAdvantage

‎cisco

Network Security Administrator

Course Progression

| Intro to IoT | → | Intro to Cybersecurity | → | **A+ Certification** ✓ IT Essentials | → | **Cisco CCENT** ✓ CCNA R&S (ITN and RSE) / Cybersecurity Essentials | → | **Cisco CCNA Security** ✓ CCNA Security |

Computer Technician

Networking Technician with Security Focus

Network Security Administrator

Complementary Learning Activities

Expand Your Knowledge

- Networking Essentials (possible alternate to IT Essentials)
- CPA: Programming Essentials in C++ ✓
- NDG Linux Essentials
- Networking and Security Technology Webinars

IoT Fundamentals
- Connecting Things*
- Big Data and Analytics*
- Hackathon Playbook*

CCNA R&S: ✓
(CCNA R&S Certification)
- Scaling Networks
- Connecting Networks

Collaborate for Impact

- Cisco NetRiders Competition
- Cisco Prototyping Lab
- Internships
- NetAcad Advantage
- Hackathons

✓ Certification-aligned   * Available within 12 months

Exploratory

"*Exploring the world by discovering the Internet of Everything*"

Introduction to IoT

Course Overview

The Introduction to IoT (Internet of Things) course introduces learners to the technologies that support IoT, and the career and social opportunities created by the growing number of networked connections between people, processes, data, and things.

Benefits

For students seeking an overview of trends, technologies, and career opportunities in the Internet of Things.

Learning Components

- 5 modules of interactive content featuring IoT experts
- Activities, videos, and simulations to enhance the learning experience
- Pre-test, module quizzes, and a final exam

Features

Target Audience: General audience

Prerequisites: None

Instructor Training Required: No

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

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 20 hours

Recommended Next Course: IT Essentials or IoT Fundamentals: Connecting Things

CISCO

Introduction to Cybersecurity

Course Overview

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

Benefits

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

Learning Components

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

Features

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

Prerequisites: None

Instructor Training Required: No

Languages: Chinese-S, English, French, German, Hebrew, Italian, Japanese, Spanish

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 15 hours

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 IT.

Benefits

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

Learning Components

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

Features

Target Audience: Secondary and general audience new to IT

Prerequisites: None

Instructor Training Required: No

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

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 30 hours

Recommended Next Course: IT Essentials

CISCO

Packet Tracer Know How

Course Overview

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

Benefits

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

Learning Components

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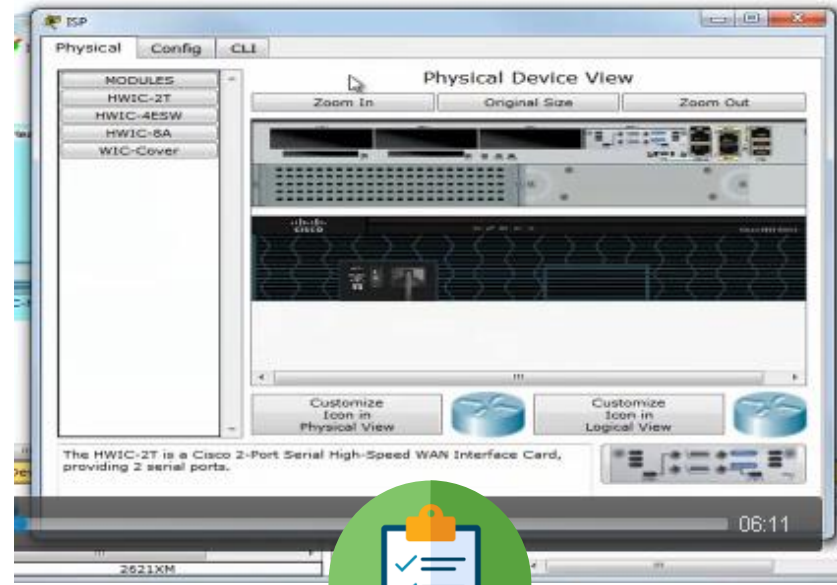
Features

Target Audience: General audience

Prerequisites: None

Instructor Training Required: No

Languages: English, French

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 1 hour

Be Your Own Boss

Course Overview

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

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

Benefits

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

Learning Components

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

Features

Target Audience: General audience

Prerequisites: None

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 8 hours

Recommended Next Course: Entrepreneurship

CISCO

"If I didn't have an opportunity for a business challenge with a positive impact for society… I wouldn't be here today."

Chuck Robbins
CEO, Cisco

What Can You Do Next?

Sign-up to
become
an Academy

Start an
Exploratory
Program

Start a
Cert-Aligned
Program

Foundational

IT Essentials

Course Overview

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

Benefits

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

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

Learning Components

- 14 chapters
- 99 hands-on labs and 29 interactive activities
- Cisco Packet Tracer, virtual laptop, and virtual desktop learning tools

- 14 chapter exams, 1 checkpoint exam, 1 skills review exam, 1 practice final exam, 1 final exam, 1 skills-based assessment, and 2 practice exams for CompTIA A+ certification

Features

Target Audience: Secondary and 2-year college vocational students

Prerequisites: None

Instructor Training Required: Yes

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

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Introduction to Networks

CISCO

Networking Essentials

Course Overview

Networking Essentials teaches networking based on environments students may encounter in their daily lives including small office and home office (SOHO) networking. This course provides hands-on learning using real equipment and Packet Tracer simulation activities.

Benefits

This course teaches the skills needed to obtain entry-level SOHO network installer jobs. It also helps students develop some of the skills needed to become network technicians, cable installers, and help desk technicians.

Networking Essentials prepares students for continuing with the CCNA R&S curriculum. Students studying other non-IT fields would also find this course a useful introduction to IT and networking.

Learning Components

- 9 chapters
- 21 hands-on labs
- 17 Cisco Packet Tracer files

- 1 hands on skill assessment
- 9 chapter exams, 1 checkpoint exam, 1 practice final exam, 1 final exam

Features

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

Prerequisites: None

Instructor Training Required: Yes

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

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

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

Cybersecurity Essentials

Course Overview

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

Benefits

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

Learning Components

- 8 chapters
- 34 interactive activities, 10 Cisco Packet Tracer Activities, 12 hands-on labs that reinforce learning

- 8 chapter quizzes, 1 final exam
- Links to related resources

Features

Target Audience: Secondary and 2-year college vocational students

Prerequisites: Introduction to Cybersecurity

Instructor Training Required: No

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

Course Delivery: Instructor-led and Self-paced

Estimated Time to Complete: 30 hours

Recommended Next Course: CCNA R&S Introduction to Networks

CISCO

NDG Linux Essentials

Course Overview

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

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

Benefits

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

Learning Components

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

NDG

Network Development Group
www.netdevgroup.com
October 1, 2014

Overview
Linux Essentials Course

Certification Aligned

Features

Target Audience: Secondary and 2-year college students

Prerequisites: None

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Introduction to Networks

cisco

CPA: Programming Essentials in C++

Course Overview

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

Benefits

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

Learning Components

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

Certification Aligned

Features

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

Prerequisites: None

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

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

CLA: Programming Essentials in C

Course Overview

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

Benefits

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

Learning Components

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

Certification Aligned

Features

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

Prerequisites: None

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

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

CISCO

IoT Fundamentals: Connecting Things

Course Overview

In Connecting Things, students learn how to securely interconnect sensors, actuators, microcontrollers, single-board computers, and cloud services over IP networks to create an end-to-end IoT system.

Benefits

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

Learning Components

- Understand and explain the concepts, opportunities and challenges of digital transformation using IoT.
- Interconnect sensors/actuators, microcontrollers (Arduino), Single Board Computers (Raspberry Pi) and cloud services (Cisco Spark restful API) to create an end-to-end IoT system.
- Understand the relevant aspects of cybersecurity and privacy for an IoT solution.
- Understand how digitalization is changing vertical markets such as manufacturing, energy, and smart cars.
- Use simulation tools (Packet Tracer) to create end-to-end IoT system.

Features

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

Prerequisites: Basic programming, networking and electronics

Instructor Training Required: Yes

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 40-50 hours

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

IoT Fundamentals:
Big Data & Analytics

Course Overview

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

Benefits

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

Learning Components

- Use Python to read data from sensors and store data in a SQL data base.
- Use Python Data Analysis library to clean, manipulate, integrate data sets.
- Use Python Visualization Libraries to visualize real-time data end explore acquired data sets.

- Explain the fundamental principles of a modern scalable Big Data platforms like Hadoop.
- Use storytelling to present the insights gained from extracted data.

Features

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

Prerequisites: IoT Fundamentals: Connecting Things

Instructor Training Required: Yes

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 40-50 hours

Recommended Next Course: IoT Fundamentals: Hackathon Playbook

IoT Fundamentals: Hackathon Playbook

Course Overview

The Hackathon Playbook is a comprehensive framework of tools and templates to prepare and run a Hackathon as a result of best practices and lessons-learned collected from the global execution of IoT Hackathons within Networking Academy and by other organizers.

Benefits

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

Learning Components

- Inspiration: understand, select and present the problem to be solved to recruit fellow partners.
- Ideation: invent a concept that doesn't already exist to solve a social issue. Learn how to present the solution to experts who will mentor students.
- Prototyping: create a prototyping action plan, including objects and visuals to illustrate their plan and will help an expert understand the concept and prototyping needs.
- Testing: present the concept and validate the prototype with a second expert, including user experience and enhancements.
- Presentation: present the solution and demo the prototypes to an expert panel.

Features

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

Prerequisites: IoT Fundamentals: Connecting Things and/or Big Data and Analytics

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 20-30 hours

Recommended Next Course: any Career-Ready offering from Cisco or an industry IoT training program

Mobility Fundamentals

Course Overview

Starting with Wireless Technology Standards, the Mobility Fundamentals series teaches students about wireless and mobility technologies in the Digital Transformation Age.

Topics covered in these instructor-developed courses include wireless LAN design and mobility applications.

Benefits

Builds foundational wireless and mobility technology career skills for current IT Essentials or CCNA R&S students interested in expanding their skills.

Learning Components

- Six modules of multimedia content
- Video recordings featuring Networking Academy instructors
- Activities that reinforce

learning, including Cisco Packet Tracer activities
- Assessments, including module quizzes
- Certificates of completion for each module

Features

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

Prerequisites: CCENT knowledge

Instructor Training Required: No

Languages: English

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 1.5 hours per module, total 9 hours

Complementary Courses: CCNA R&S Introduction to Networks, CCNA R&S Routing and Switching Essentials

Entrepreneurship

Course Overview

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

Students learn by completing a series of interactive case studies.

Benefits

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

Learning Components

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

Features

Target Audience: General audience

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

Instructor Training Required: No

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

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 15 hours

Complementary Course: Be Your Own Boss

Collaborate for Impact

Packet Tracer

Curriculum Overview

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

- CCNA Routing and Switching
- CCNA Security
- IT Essentials

- Intro to the Internet of Things
- Mobility Fundamentals

Career Prep

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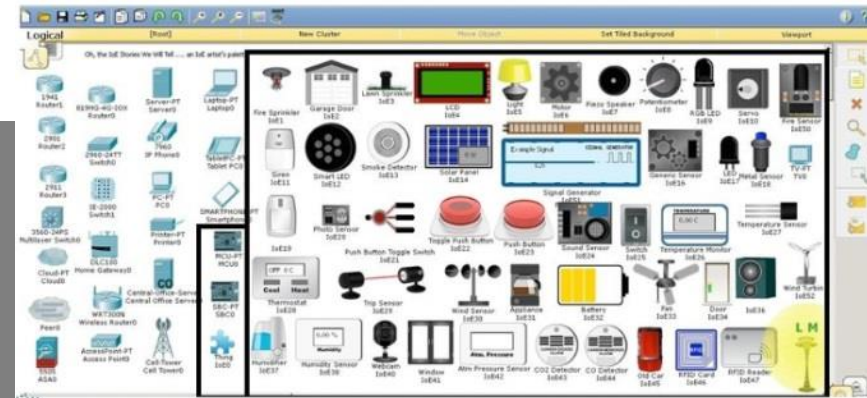
Learning Components

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

Features

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

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

Cisco Prototyping Lab

Tool Overview

The Cisco Prototyping Lab is a comprehensive learning environment created by Cisco for Networking Academy students to learn and practice key aspects of the foundational IoT technologies. Using an engaging, hands-on approach, it supports both the learning and creative phases of the Networking Fundamentals curriculum.

Career Prep

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

Learning Components

- Prototyping Lab App
- Prototyping Lab Kit
  - Raspberry Pi 3 CanaKit Ultimate Starter Kit (or equivalent)
  - SparkFun Inventor's Kit for Arduino v3.2 (or equivalent)
  - Cables, sensors & actuators

Features

As an integral part of the Networking Academy learning experience, Cisco Prototyping Lab provides

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