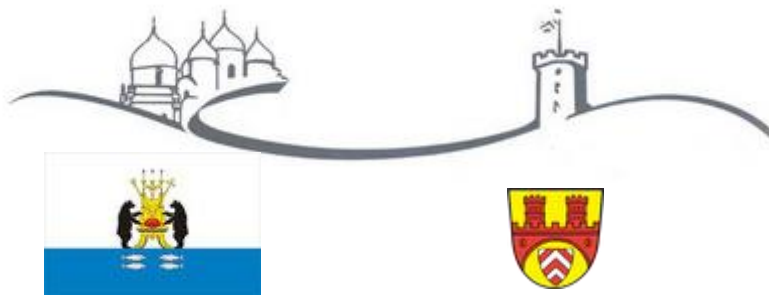
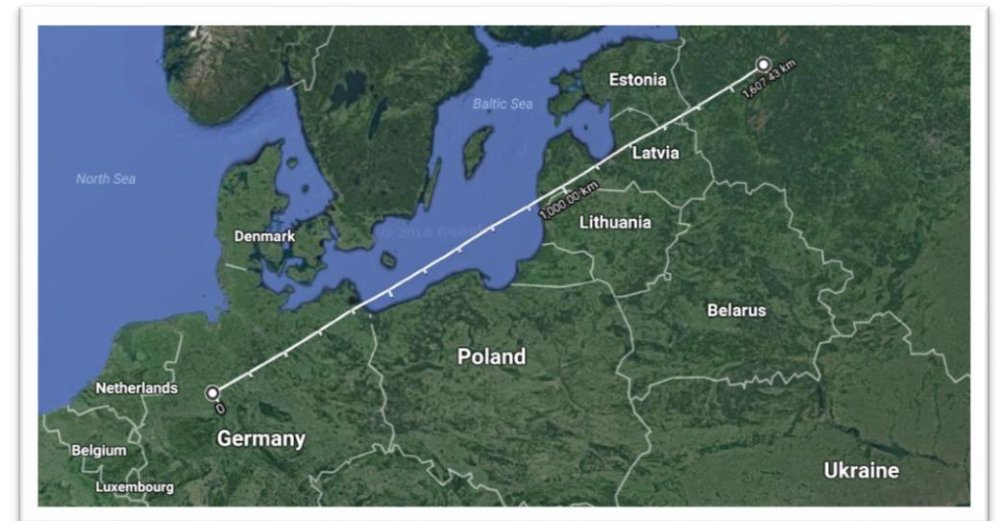


Sister cities



<http://www.bielefeld-welikijnowgorod.de/>





Cisco Networking Academy
Mind Wide Open

Course and Technical Updates

Eugene Morozov
Technical Manager CEE-RCIS

16 September 2016
Bielefeld



NetAcad Technical Team



Karen Alderson

RCIS & CEE



Eugene Morozov

Europe South,
Benelux & UKI



To
be
hired



Echo Rantanen
US-Canada

France



Julien Berton

Greater China



David Li

TMENA



Marc Khayat

LATAM



Jose Esquivel



Gabriela Neira,
Associate

Brazil



Kevin Johnston

Sub-Sahara



Serges Nanfack

APJ



Ananth
B Shankar
Rao

Agenda

- Learning Portfolio
- IT Essentials 6.0
- CCNA R&S 6.0
- CCNP Slides
- Vouchers
- Packet Tracer 7
- Academy Orientation
- NetAcad.com
- Mobility Fundamentals
- Intro to CyberSec
- Get Connected
- Be Your Own Boss Series
- C++ Programming
- Linux Courses
- Internet of Things Offerings
- Collaboration and Professional Development

Learning Portfolio



Cisco Networking Academy Learning Portfolio

Exploratory *Consider a Career in Technology*

- Introduction to IoT
- Introduction to Cybersecurity
- Get Connected

Tutorials:

- Packet Tracer Know How
- Linux Unhatched

Series:

- Be Your Own Boss
- Career & Technical Webinars

**Skills to
Solve
Real-World
Problems**

Foundational *Prepare for a Technology Career*

- IT Essentials
- NDG Linux Essentials
- Cybersecurity Essentials*
- Networking Essentials*

- CPA: Programming Essentials in C++
- Mobility Fundamentals
- Entrepreneurship

IoT Fundamentals:

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

**Collaborate for
Impact**
*Synthesize
your skills*

- Packet Tracer
- Cisco NetRiders Competition
- Internships
- Regional IT Competitions
- Regional Hackathons

Career-Ready *Step into Your Technology Career*

CCNA Routing & Switching:

- Introduction to Networks
- Routing & Switching Essentials
- Scaling Networks
- Connecting Networks

CCNP Routing & Switching:

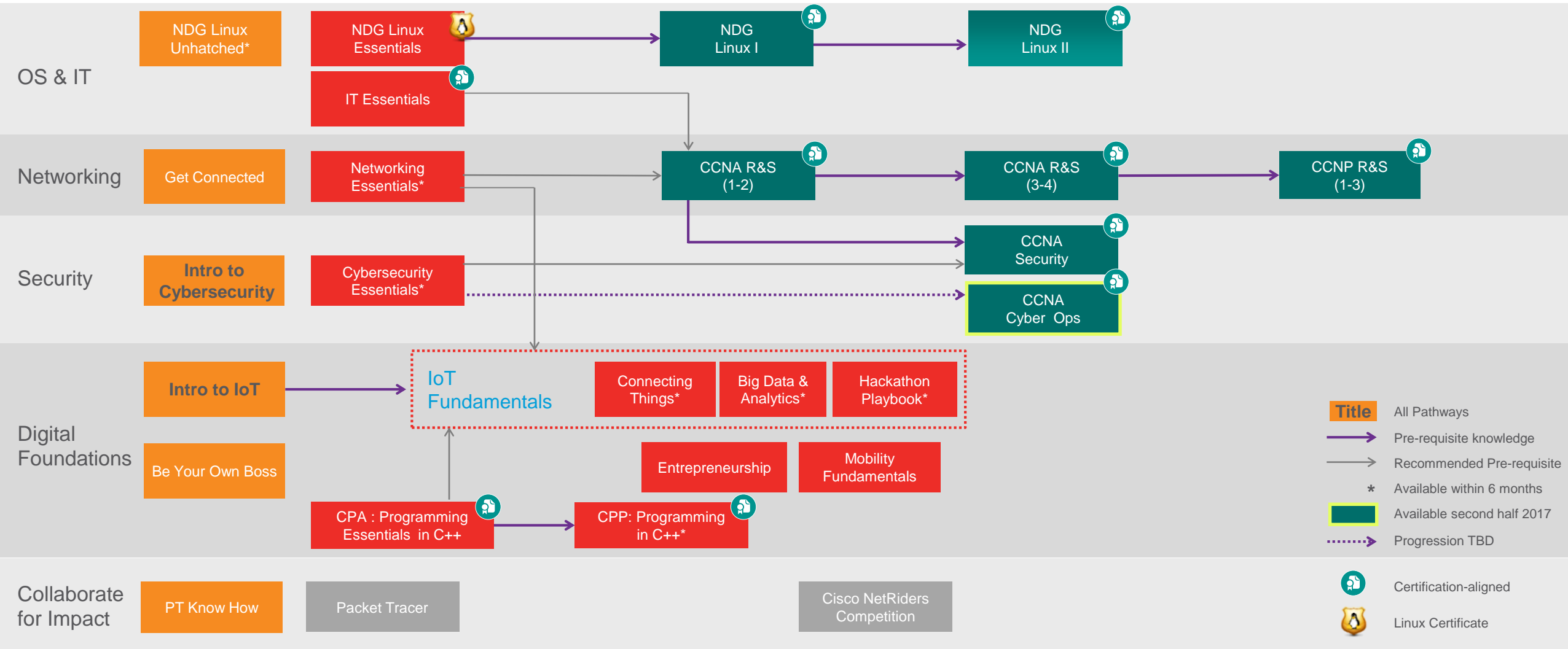
- ROUTE
- SWITCH
- TSHOOT

CCNA Security CCNA Cyber Ops**

NDG Linux:

- Linux I
- Linux II

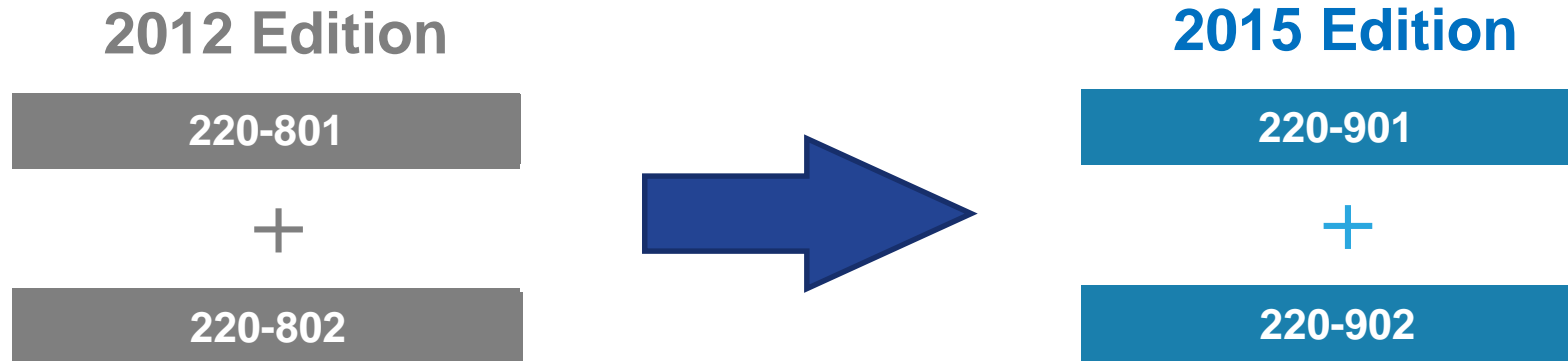
Sample Job Titles	<ul style="list-style-type: none"> Technical Support IT Field Service Technician Help Desk Technician 	<ul style="list-style-type: none"> Mobile Application Support Network Support Technician Network Analyst 	<ul style="list-style-type: none"> Network Technician Support Engineer Network Administrator 	<ul style="list-style-type: none"> Entry-Level Network Engineer Linux Administrator Cyber Ops Analyst 	<ul style="list-style-type: none"> Level II Network Engineer Network Designer Security, Voice or Wireless Engineer
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IT Essentials 6.0



New CompTIA A+ Certification Exams



- New certification exams were announced in December 2015
- 220-800 series exams will be available until June 30, 2016
- Both the 220-901 and 220-902 exams must be passed for CompTIA A+ certification
- Student vouchers are available for 900-series exams through the CompTIA Authorized Partner Program

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.

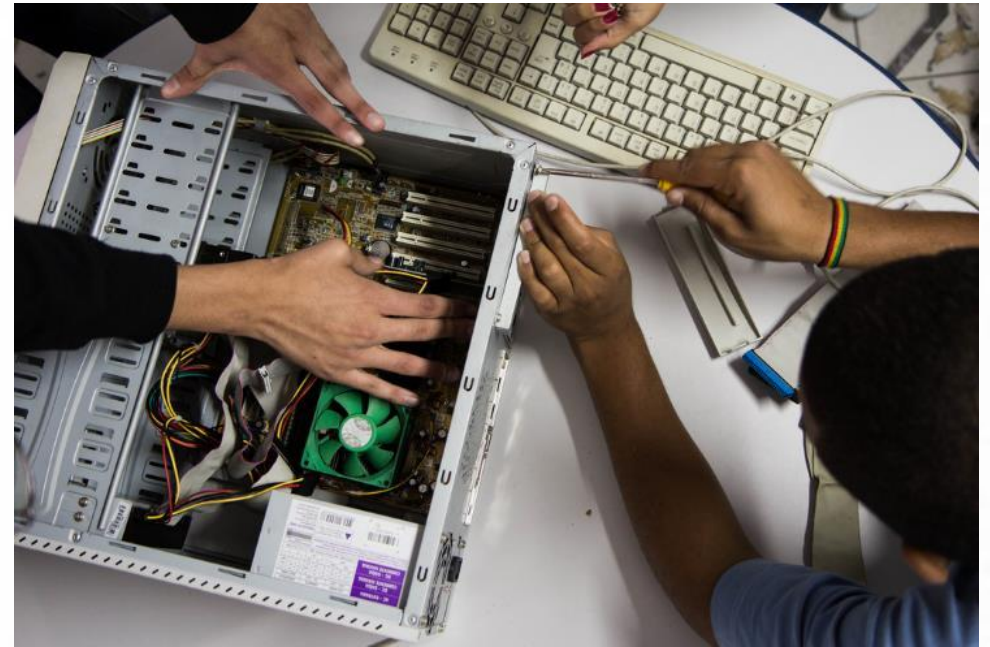
Benefits

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

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

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Introduction to Networks

IT Essentials 6.0 Content Updates

ITE 5.0	ITE 6.0
Chapter 1: Intro to the Personal Computer	Chapter 1: Introduction to the Personal Computer
Chapter 2: Lab Procedures and Tool Use	Chapter 2: Introduction to Lab Procedures and Tool Use
Chapter 3: Computer Assembly	Chapter 3: Computer Assembly
Chapter 4: Overview of Preventive Maintenance	Chapter 4: Overview of Preventive Maintenance
Chapter 5: Operating Systems	Chapter 5: Windows Installation
	Chapter 6: Windows Configuration and Management
Chapter 6: Networks	Chapter 7: Networking Concepts
	Chapter 8: Applied Networking
Chapter 7: Laptops	Chapter 9: Laptops and Mobile Devices
Chapter 8: Mobile Devices	Chapter 10: Mobile, Linux and OS X Operating Systems
Chapter 9: Printers	Chapter 11: Printers
Chapter 10: Security	Chapter 12: Security
Chapter 11: The IT Professional	Chapter 13: The IT Professional
Chapter 12: Advanced Troubleshooting	Chapter 14: Advanced Troubleshooting

End-of-Life for IT Essentials 5.0

Course	Language	Last Class Start Date
IT Essentials 5.0	English	January 20, 2017

Workshoprunde 1
17.30 – 18.30
IT Essentials 6.0 Session
Bernd Kelker
D431

CCNA R&S Updates



Cisco CCNA R&S Certification and CCNA R&S 6.0 Bridging Course

- **NEW** Cisco CCNA R&S Certifications
Announcement: May 17, 2016
- **NEW** NetAcad CCNA R&S 6.0 Bridging Course




Training & Certifications

Overview Certifications Train and Study Exams Benefits Training Events

Next Generation CCNA R&S Certification: Preparing for Digital Transformation

The CCNA R&S certification has been updated to meet the latest shifts in technologies.

[Get Started](#)



News a

New CCNA
May 17, 2016

New CCNA
May 17, 2016

Polish Intro to the Internet of Everything
Course Available
May 11, 2016

EOL Dates
Hungarian
May 11, 2016

Polish Intro
Course Av
May 11, 2016

Workshoprunde 2
18.45 – 19.45
CCNA R&S 6.0 Session
Thomas Meuser
F105

Workshoprunde 4
Tomorrow 10.15 – 11.15
CCNA R&S 6.0 Session
Thomas Meuser
D431

CCNA R&S version 6.0

Course Release Timeline

Course	Language	Projected Release
Introduction to Networks (ITN) v6.0	English	December 2016
Introduction to Networks (ITN) v6.0	Arabic, Chinese, French, Portuguese, Spanish and Russian	December 2016
Routing and Switching Essentials (RSE) v6.0	English	December 2016
Routing and Switching Essentials (RSE) v6.0	Arabic, Chinese, French, Portuguese, Spanish and Russian	Jan-April 2017 timeframe
Scaling Networks (ScaN) v6.0	English	June 2017
Connecting Networks (CN) v6.0	English	July 2017
ScaN and CN v6.0	Arabic, Chinese, French, Portuguese, Spanish and Russian	TBD

CCNP Slides



CCNP PowerPoints Now Available !!!



- Available in the Course resources

<https://www.netacad.com/group/resources/ccnp/7.1>

- Use CCNP Forums in NetAcad Communities to share your feedback

A screenshot of the Cisco Networking Academy website. The header shows the Cisco logo, 'Cisco Networking Academy', and links for 'My NetAcad', 'About Us', and 'Program'. The breadcrumb trail reads 'Resources / CCNP Routing & Switching / CCNP Routing & Switching 7.1'. Below this, a navigation bar shows 'Intermediate' as the selected level, along with 'Duration: 70 Hours', 'Classroom/Lab', 'Networking', and 'Instructor-led'. The main heading is 'CCNP Routing & Switching 7.1' with the subtitle '3 Course Curriculum'. Below this, it says 'Version 7.1 | Released October 2015' and provides a link for 'Release Notes & Versions'. The 'Course Overview' section describes the curriculum as providing a comprehensive overview of enterprise-level networking concepts, including advanced routing switching and troubleshooting. It mentions the curriculum consists of 3 complete courses: SWITCH, ROUTE, and TSHOOT. At the bottom, there are two sections: 'Classroom Resources' and 'Lab Resources'. The 'Classroom Resources' section is highlighted with a red box and lists 'Instructor PPT - CCNP ROUTE', 'Instructor PPT - CCNP SWITCH', 'Instructor PPT - CCNP TSHOOT', and 'Images used in the CCNP ROUTE FLG -'. The 'Lab Resources' section lists 'CCNP ROUTE student lab manual', 'CCNP ROUTE instructor lab manual', 'CCNP SWITCH student lab manual', and 'CCNP SWITCH instructor lab manual'.

CCNP R&S 7.1

- Course Components

Instructor PowerPoints

Chapter and Final Exams (leveraging Canvas Quiz functionality)

Hands-on labs

Final Skills Based Assessment

Leveraging CiscoPress.com CCNP R&S Foundation Learning Guides

- CCNP R&S 7.1

Minor version of CCNP R&S courses

Integrate community comments and feedback

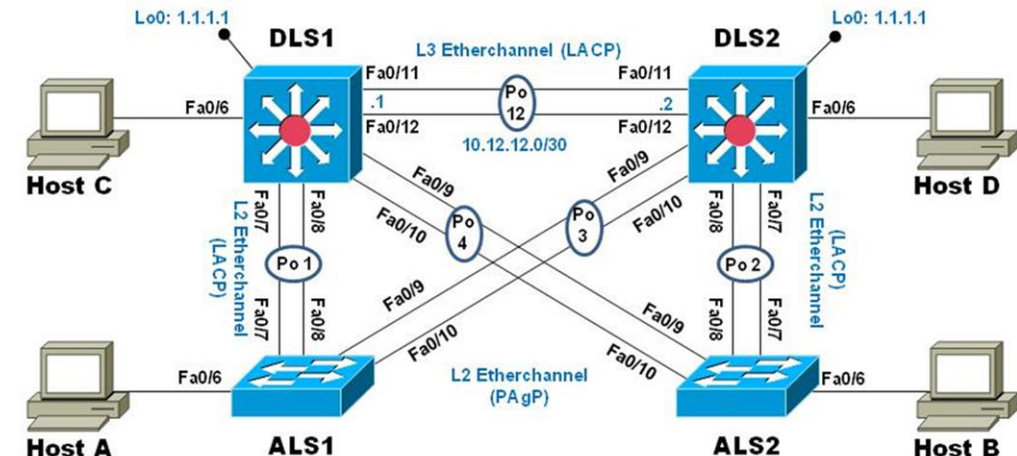
Implement bug fixes

▼ Chapter 1 - Basic Networking and Routing
CCNPv7_ROUTE_Lab1-1_RIPng_Student.doc
Chapter 1 Exam
▼ Chapter 2 - EIGRP
CCNPv7_ROUTE_Lab2-1_EIGRP-Load-Balancing_Student.doc
CCNPv7_ROUTE_Lab2-2_EIGRP-Stub-Routing_Student.doc
CCNPv7_ROUTE_Lab2-3_EIGRP-IPv6_Student.doc
CCNPv7_ROUTE_Lab2-4_EIGRP-Named-Configuration_Student.doc
Chapter 2 Exam

CCNPv7.1 SWITCH

Skills-Based Assessment (Version A)

Topology



Vouchers



Vouchers

Exam	Course	Criteria	Student discount	Instructor discount
CompTIA A+	IT Essentials	75% or higher on first attempt of final exam AND “Complete” in the gradebook	No voucher	No voucher
ICND1	CCNA 2 (RSE)		58 %	No voucher
ICND2	CCNA 4 (CN)		58 %	No voucher
CCNA “Composite”	CCNA 4 (CN)		58 %	70 %
CCNA Security IINS	CCNA Security		50 %	70 %
CCNP	CCNP		No voucher	No voucher
LPI: Linux Essentials	Linux Essentials	“Complete” in the gradebook	20 %	No voucher
LPIC 101	Linux I	“Complete” in the gradebook	20 %	No voucher
LPIC 102	Linux II	“Complete” in the gradebook	20 %	No voucher
CPA - C++ Certified Associate Programmer	Programming Essentials in C++	Take all chapter assessments and the mock test AND 70% or higher on final test	51 %	No voucher

Packet Tracer 7.0



New in Version 7.0

- **Trial use for non-NetAcad guest users**

- **HTTP Server Improvements**

JavaScript and CSS support.

FTP server file import inside Packet Tracer.

HTTP and FTP linked file management support.

Registration Server for IoT.

- **Physical Workspace**

Network topology creation.

Device deployment.

Cabling of devices.

Wiring closet device deployment and cabling.

Unplugging and moving of cables.

Simulation mode support.

Generic Container Creator.

Volume control for containers.

Icon tool for background.

- **Other Changes**

SPAN/RSPAN support.

L2NAT support.

PTP support.

REP support.

LLDP support.

IOx support.

DHCP Server Port-Based Address Allocation support.

Improved PoE support.

Improved copy and paste support.

Piping support in show commands.

IoT Switch protocol support.

Modifiable Environment demonstrating IoT changes.

Python, JavaScript, Blockly programming added for IoT usage.

- **New Devices**

819IOX Routers

829 Router

1240 Router

IE 2000 switch

Microcontroller Unit (MCU).

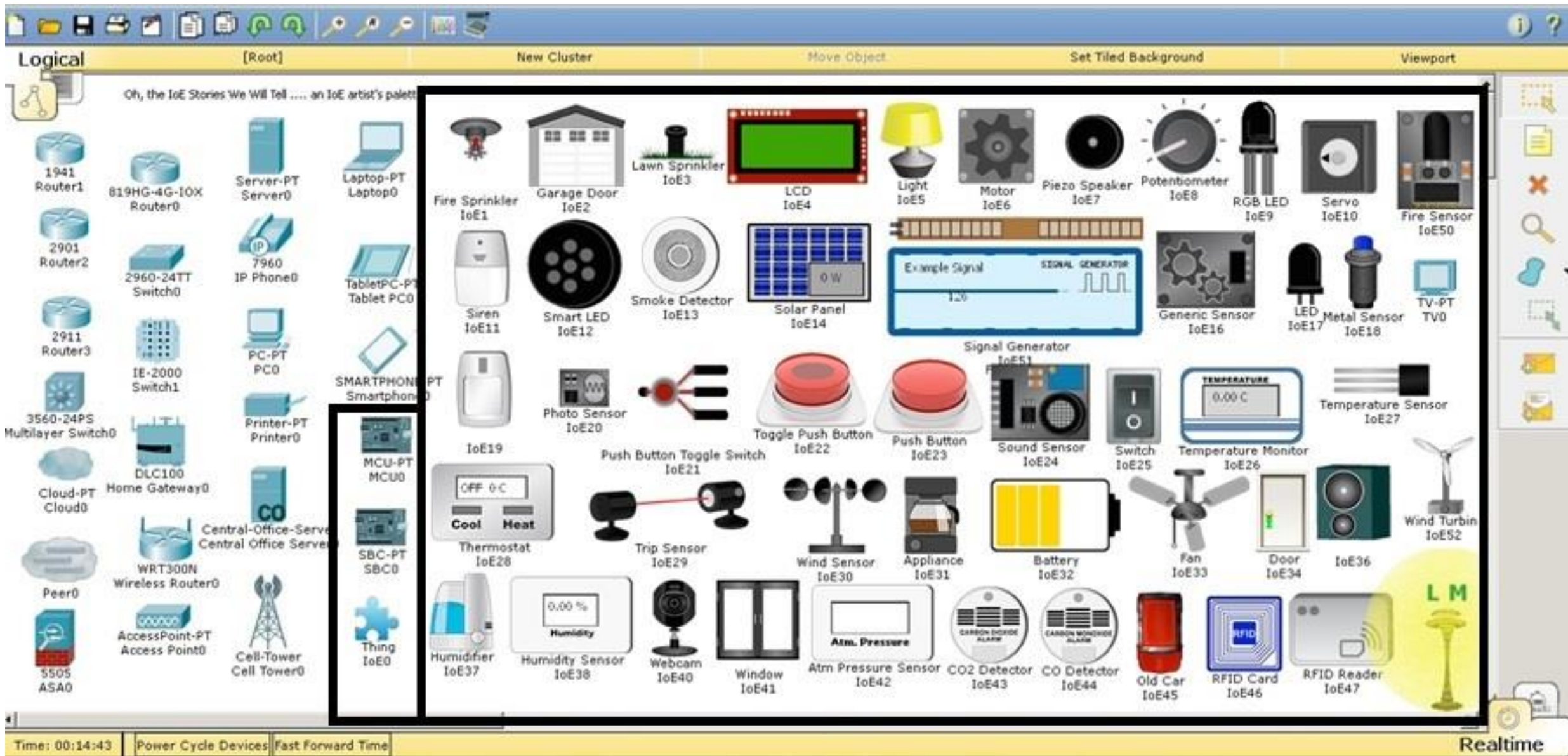
Single Board Computer (SBC).

Generic Thing.

IoT HomeGateway

IoT Actuators, Sensors, and Smart Devices.

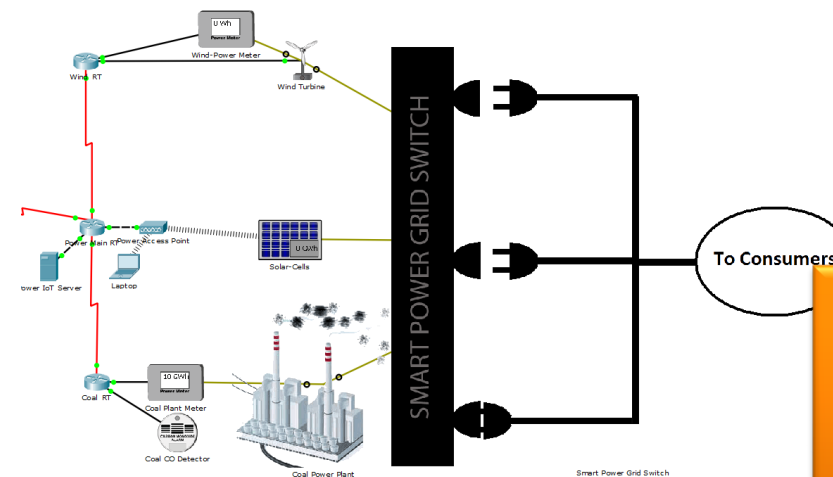
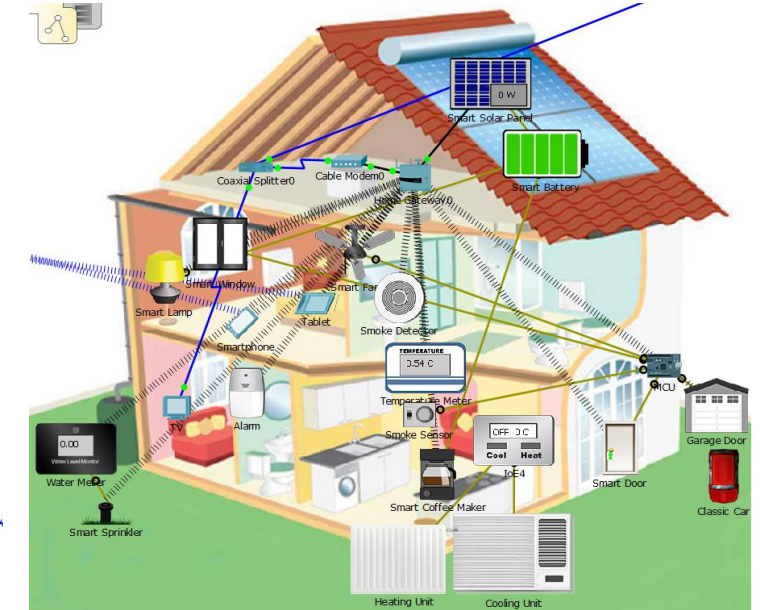
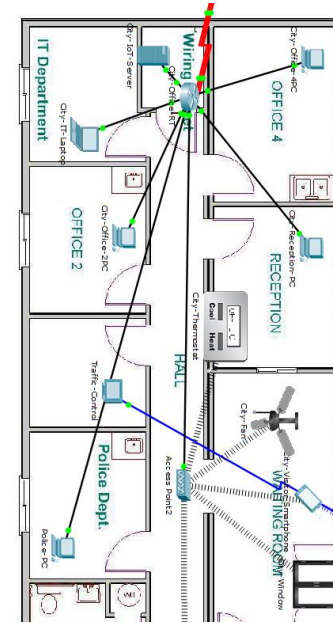




All devices that are inside the boxes are completely new in PT7.0

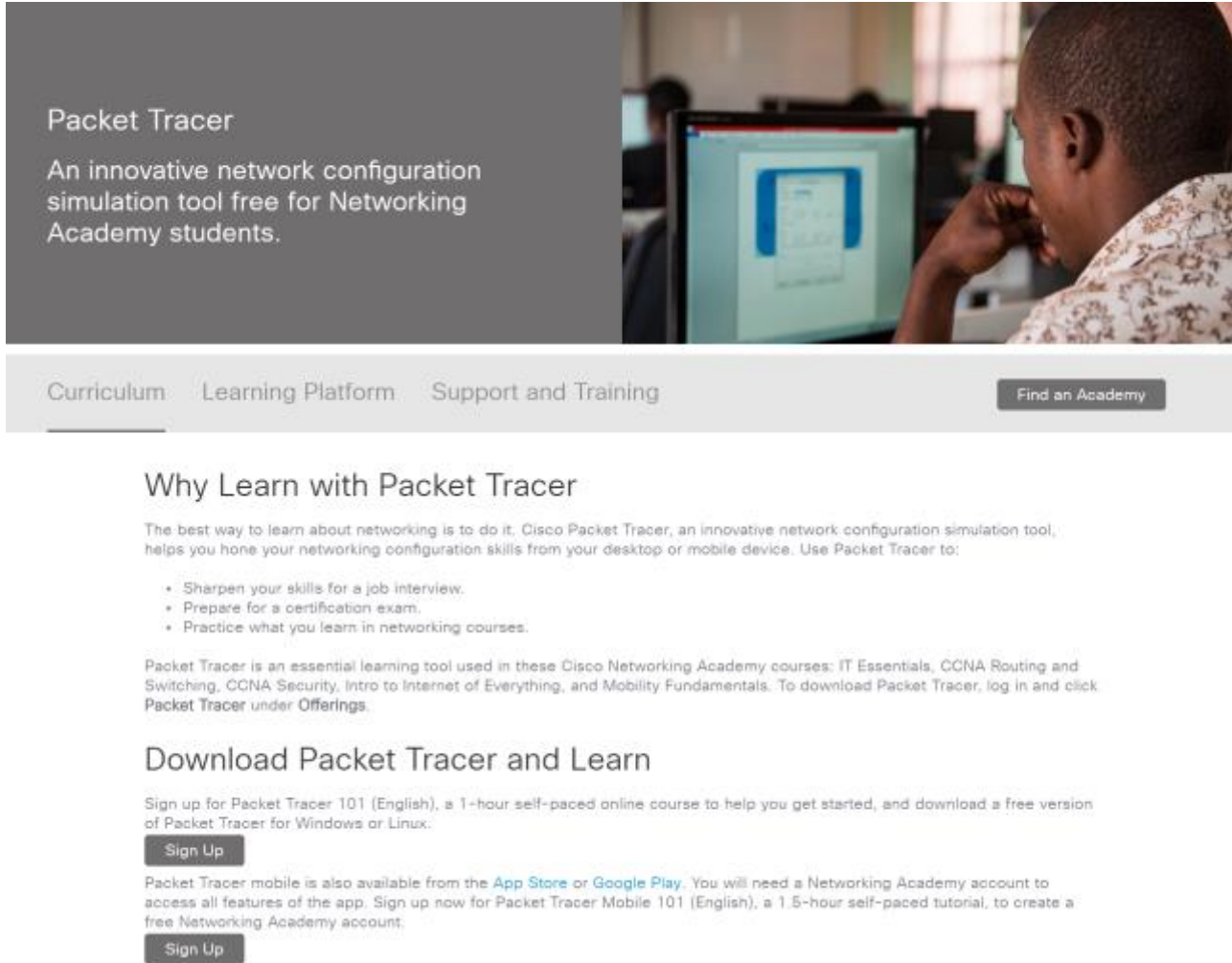
Highlights 7.0

- Physical Environments
- Smart devices, sensors and actuators
- Smart Home, Smart City, Industrial, Power Grid
- Edit existing or program your own devices
- Python, Javascript, Blockly
- SBC and MCU
- Home Gateway and Reg Server
- Rules for devices to work together
- Routers 819 and 829



Workshoprunde 5
Tomorrow 11.45 – 12.45
PT 7.0 Session
Stefan Platzeck
D419

New Packet Tracer Page



Packet Tracer

An innovative network configuration simulation tool free for Networking Academy students.

Curriculum Learning Platform Support and Training [Find an Academy](#)

Why Learn with Packet Tracer

The best way to learn about networking is to do it. Cisco Packet Tracer, an innovative network configuration simulation tool, helps you hone your networking configuration skills from your desktop or mobile device. Use Packet Tracer to:

- Sharpen your skills for a job interview.
- Prepare for a certification exam.
- Practice what you learn in networking courses.

Packet Tracer is an essential learning tool used in these Cisco Networking Academy courses: IT Essentials, CCNA Routing and Switching, CCNA Security, Intro to Internet of Everything, and Mobility Fundamentals. To download Packet Tracer, log in and click [Packet Tracer](#) under [Offerings](#).

Download Packet Tracer and Learn

Sign up for Packet Tracer 101 (English), a 1-hour self-paced online course to help you get started, and download a free version of Packet Tracer for Windows or Linux.

[Sign Up](#)

Packet Tracer mobile is also available from the [App Store](#) or [Google Play](#). You will need a Networking Academy account to access all features of the app. Sign up now for Packet Tracer Mobile 101 (English), a 1.5-hour self-paced tutorial, to create a free Networking Academy account.

[Sign Up](#)

- Newly designed page for Packet Tracer
- Promote PT know how courses
- Anyone can register to the course and get a copy of Packet Tracer

Cisco Packet Tracer

The best way to learn about networking is to do it. Cisco Packet Tracer, an innovative network configuration simulation tool, helps you hone your networking configuration skills from your desktop or mobile device. Use Packet Tracer to:

- Sharpen your skills for a job interview
- Prepare for a certification exam
- Practice what you learn in networking courses

Download

To access previous versions of Packet Tracer, FAQs, and other documentation, go to [Resources](#).

[Windows](#)

Version 6.3 English

[Download](#)

[Linux](#)

[iOS](#)

[Android](#)

Packet Tracer Know How Course

Need help getting started? [Packet Tracer Know How](#) is a series of 1 hour tutorials that guide you through the Packet Tracer interface with tips on how to use it.

<https://www.netacad.com/about-networking-academy/packet-tracer/>

Install the Packet Tracer mobile now!



- Support Android 4.2 – 5.0 tablets with 7 inch screen or larger
- Scan the QR code on your Android mobile devices or click the link below to install the Packet Tracer mobile

<https://play.google.com/store/apps/details?id=com.netacad.PacketTracerM>



affiliates. All rights reserved.



- Supporting iPad & iPhone running iOS 8
- Search “Packet Tracer” in “App Store” to install it

<https://itunes.apple.com/us/app/id1015041980>





Instructor led option
now available!

Packet Tracer Know How Series

Course Overview

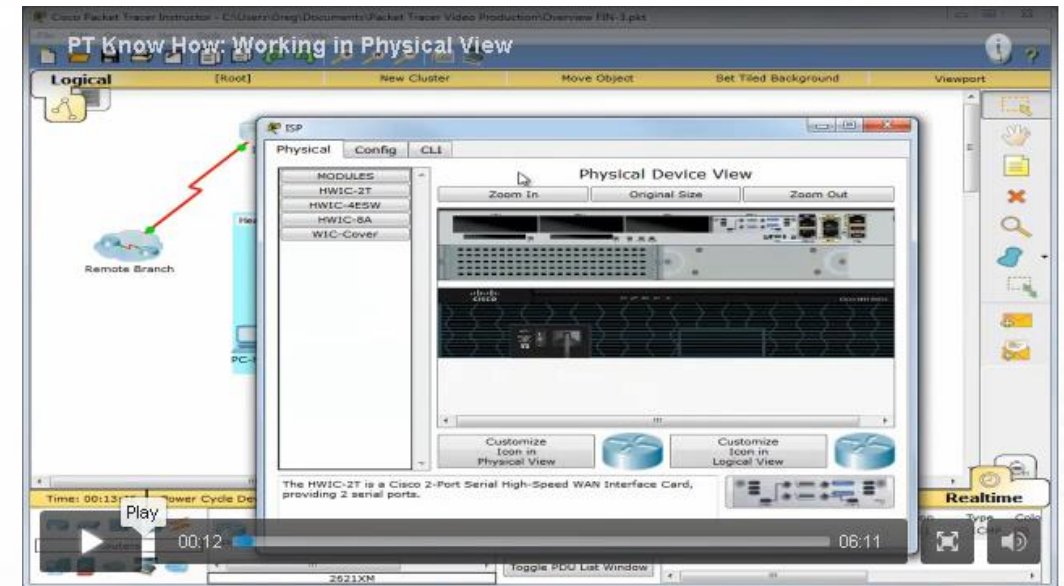
The Packet Tracer Know How Series is designed for new users of Packet Tracer for self-study and familiarization with the tool used in many Networking Academy courses. Packet Tracer courses are available for the desktop and for mobile. (Android and iOS).

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

Languages: English, French

Course Delivery: Instructor -led or Self-paced

Estimated Time to Complete: 1 hour

Academy Orientation Course



Academy Orientation 6.0 - Update

Course Overview

Academy Orientation provides new Networking Academy instructors, administrators, and other partners a broad overview of the Cisco Networking Academy program, the services and resources available, and how to use these resources and netacad.com effectively.

Prerequisites: None

Languages: English

Course Delivery: Instructor led at an ASC or self paced

Estimated Time to Complete: 10 hours

Rationale

Completing the Academy Orientation Course can help instructors and administrators gain a strong understanding of the Networking Academy and feel more confident implementing the program.

6.0 Updates

- References to netacad.com
- Updated course offerings
- Self-certification available
- Updated policies regarding requirements for offering courses

All new non-student users are encouraged to take the course

Notes

- Academy Support Advisors must be accredited to open the course
- Self-enroll link located in Global Instructor Resources community
- Course is recommended not required



Learning Components

- 10 chapters
- Videos
- Links to netacad.com tutorials
- Quizzes

NetAcad.com Updates



I'M LEARNING STUDENT HOMEPAGE

Student Sign Up

Available Now!

Header

Prominent page identification, opportunity for CSR branding.

Work Area

Main content provides easy access to the primary user goals and tasks. Different types of content are visually distinct.

Exploration

Role-specific marketing resources provide inspiration and connection with the larger community.

Resources

Role-specific resources allows access to rarely used functions and supplemental support material.

I'M TEACHING INSTRUCTOR HOMEPAGE

Header

Prominent page identification, opportunity for CSR branding.

Work Area

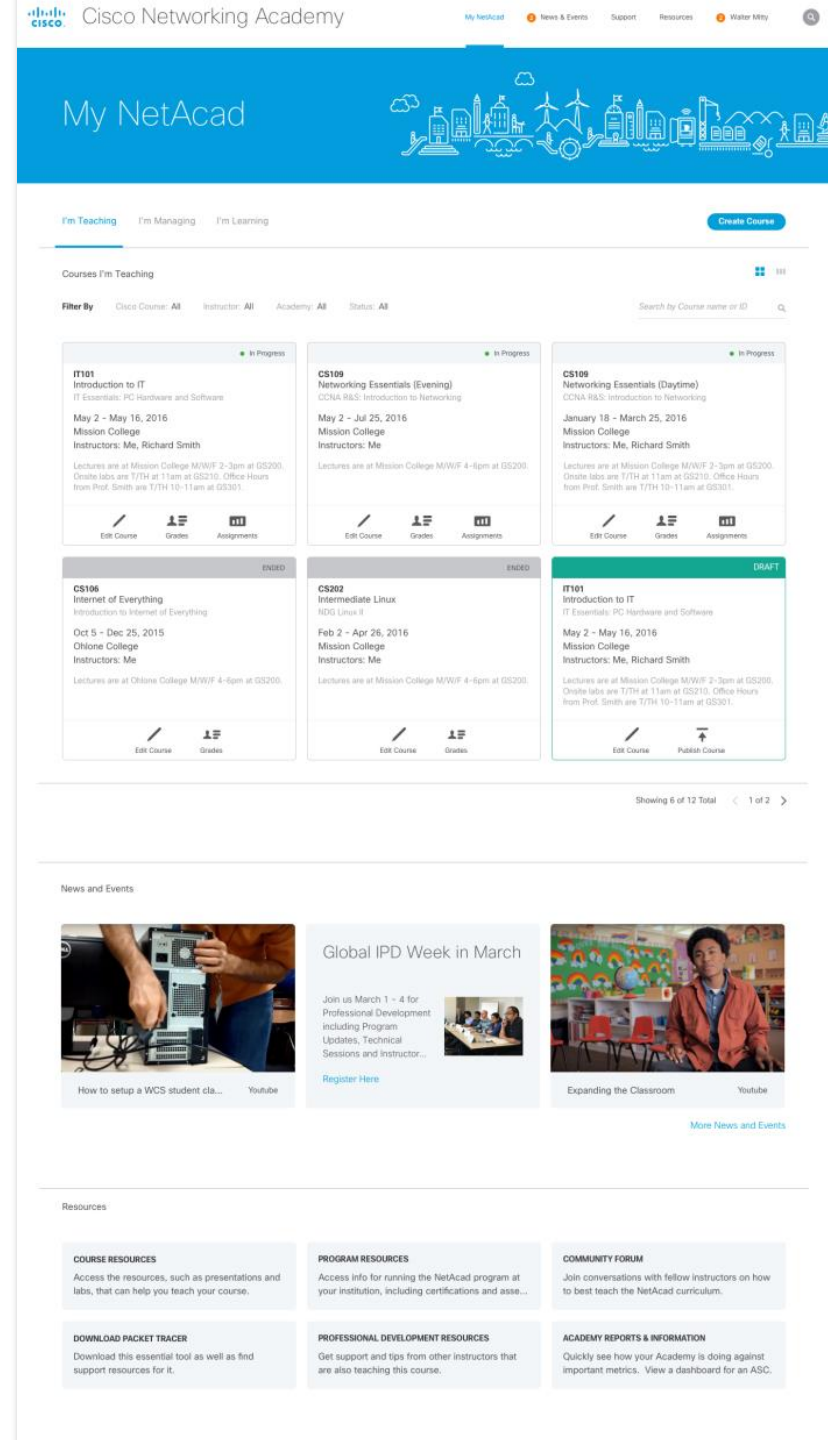
Main content provides easy access to the primary user goals and tasks. Different types of content are visually distinct.

Exploration

Role-specific marketing resources provide inspiration and connection with the larger community.

Resources

Role-specific resources allows access to rarely used functions and supplemental support material.



Beta Available early
October 2016

I'M MANAGING

ADMINISTRATOR HOMEPAGE

Academy Information

A brief overview of the Academy contact, details, and various tasks managers need to perform related to their academy.

Academy Courses

A list of all courses offered at this Academy, including instructors who are qualified to teach those courses and when they were last offered.

Academy Users

Managers can filter and sort a list of all users. They can also manage user roles, reset passwords, qualify instructors, and other administrative tasks.

Beta Available November 2016

Cisco

Cisco Networking Academy

My NetAcad

News & Events

Support

Resources

Water Mitty

My NetAcad

I'm Teaching

I'm Managing

I'm Learning

ACADEMY SUPPORT CENTER

Western Academy Support & Training Center

Other Academies

Launch Canvas

Contact: Jonathan Mehetre

ASC Name: HTL Wien 3 Rennweg

ASC Contact: Christian Schoendorfer

Edit Details

Manage Agreements

View Academy Reports

ASC Relationships

Apply to become an ASC or ITC

WASTC Courses

WASTC Users

Create Course

Filter By

Start Date: All

Cisco Course: All

Instructors: All

Search

Course ID	Course Name	Start Date	Instructor	Cisco Course Version	
CS101	Internet of Everything	21 May 2016	Jessica Dixon	English v 1.2	
CS222	Routing & Networking	27 August 2015	George Riley, Sanjeev Gupta	English v 6.2	
CS109	Introduction to Networking	17 January 2016	George Riley, Sanjeev Gupta	English v 6.2	
CS222	Routing & Networking	27 August 2015	George Riley	English v 6.2	
CS201	Intro to Linux	27 August 2015	George Riley	English v 6.2	
CS101	Internet of Everything	17 January 2016	Linh Nguyen	English v 1.0	
CS202	Intro to Linux 2	21 May 2016	Jessica Dixon	English v 1.1	
CS222	Routing & Networking	27 August 2015	Linh Nguyen, Jessica Dixon	English v 1.0	
CS301	Security	27 August 2015	George Riley	English v 6.2	
CS109	Introduction to Networking	22 May 2014	Rob Johnson, Dan Weis	English v 2.2	
CS202	Intro to Linux 2	22 May 2014	Rob Johnson, Dan Weis	English v 2.2	
CS101	Internet of Everything	17 January 2016	George Riley	English v 1.1	
CS222	Routing & Networking	27 August 2015	George Riley	English v 6.1	
CS109	Introduction to Networking	17 January 2016	George Riley	English v 6.1	
CS301	Security	22 May 2014	Rob Johnson	English v 2.2	

Show: 15

< 15 of 355 >

Terms and Conditions

Privacy Statement

Cookie Privacy

Trademarks

NetAcad, a Cisco Corporate Social Responsibility program, is an IT skills and career building program available to learning institutions and individuals worldwide.

Mobility Fundamentals Series



Mobility Fundamentals Series

Series 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. Five Modules available

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

- Several 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

Explosive Mobile Device Growth



Features

Target Audience: Upper secondary, 2-year and 4-year college students

Prerequisites: None

Languages: English

Course Delivery: Self-paced

Estimated Time to Complete: 1.5 hours each

Recommended Next Course: Complete the Mobility Fundamentals Series

Wireless Technology and Standards

Introduction to Wireless Technologies

Bogdan Doinea
IoT Systems Engineer, Romania
bdoinea@cisco.com

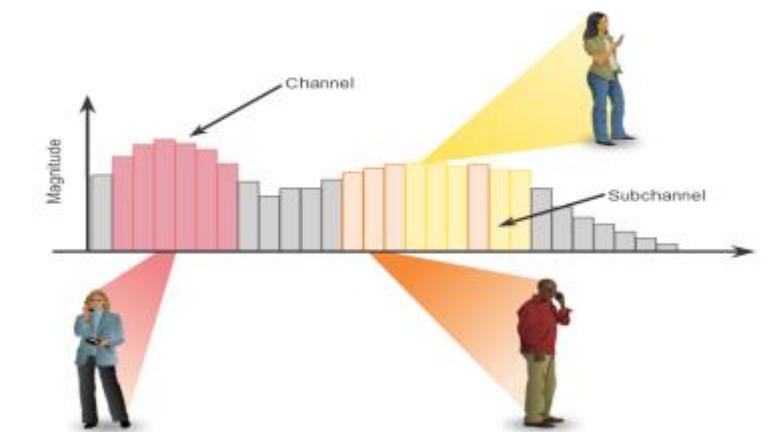


Explosive Mobile Device Growth

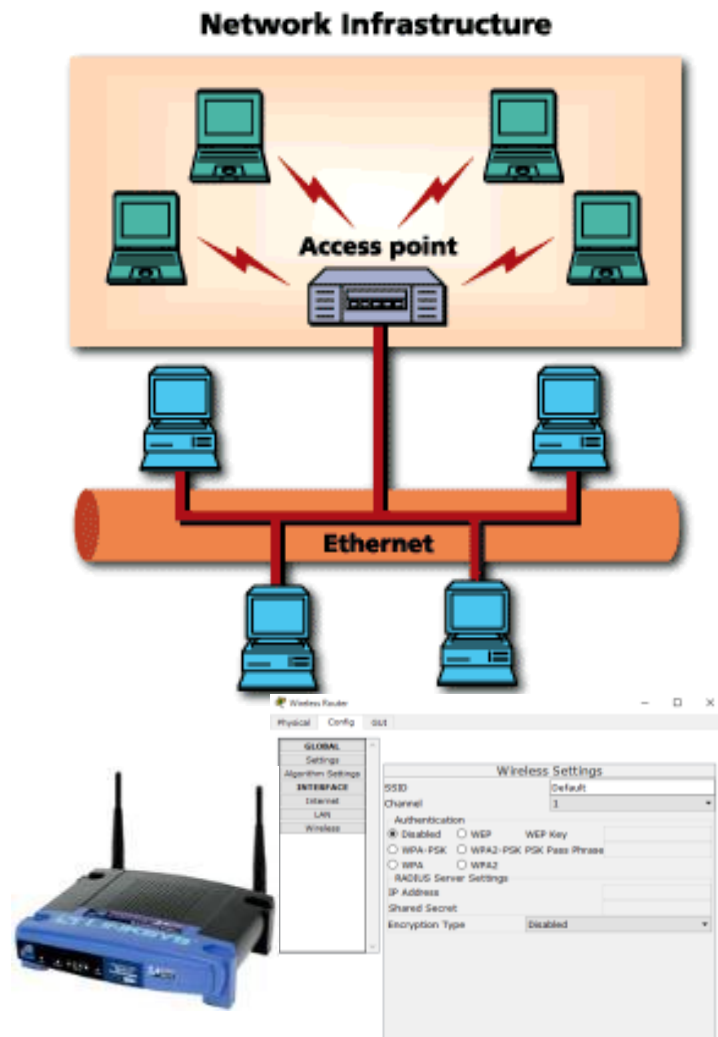
- In 2020 there will be 50 billion connected devices
- Smartphone & Tablet adoption growing 70%+ annually***
- In 2014, more than 60% of network devices shipped without a wired port***



Wireless LAN Networks



Wireless Router and Clients Configuration



Wireless LAN Security

Module 4:

William H. Wolfie explains the vulnerabilities and threats on a wireless LAN and the need for wireless LAN security. Threat mitigation technologies, authentication and encryption protocols necessary for security wireless LANs are also covered.

Learning Outcome

- Understand Wireless Threats and Vulnerabilities
 - Understand Wireless Security Protocols for Authentication and Encryption
 - Understand Mitigation Technologies
 - Understand how to secure Enterprise Wireless LANs
-
- 1.5 hour content / video recording
 - Quiz

Vulnerabilities

Hackers/Criminal



“War Driving”



Thanks to contributor :



William H. Wolfe (US)



Intro to Cybersecurity



Introduction to Cybersecurity

Course Overview

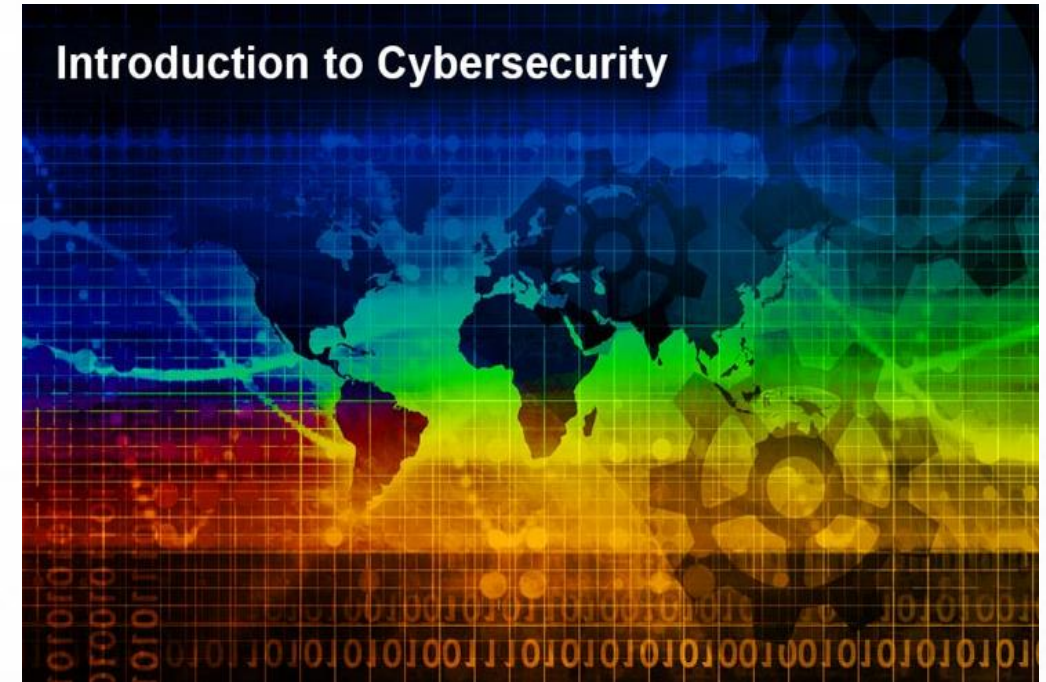
The Introduction to Cybersecurity course explores cyber trends, threats and staying safe in cyberspace, and protecting personal and company data.

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: Upper secondary and 2-Year college students, general audience

Prerequisites: None

Languages: Chinese-S, English, **German** (Oct '16)

Course Delivery: Instructor -led or Self-paced

Estimated Time to Complete: 15 hours

Recommended Next Course: Cybersecurity Essentials, releasing Fall 2016

Get Connected



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

Languages: English, French, **German**, Italian, Portuguese-BR, Spanish, Chinese-Simplified

Course Delivery: Instructor-led or Self-paced

Estimated Time to Complete: 30 hours

Recommended Next Course: IT Essentials

Be Your Own Boss Series for Instructor



Be Your Own Boss Series

Course Overview

The Be Your Own Boss 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

Languages: English

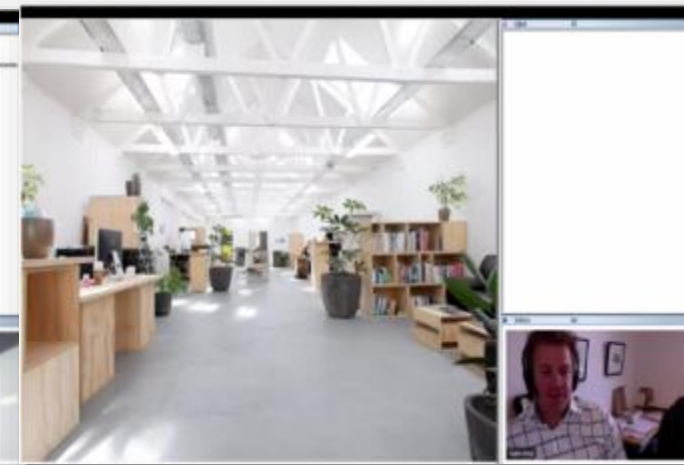
Course Delivery: Instructor -led or Self-paced

Estimated Time to Complete: 8 hours

Recommended Next Course: Entrepreneurship

Be Your Own Boss Modules

Instructor-Facilitated version combines all modules into one course.

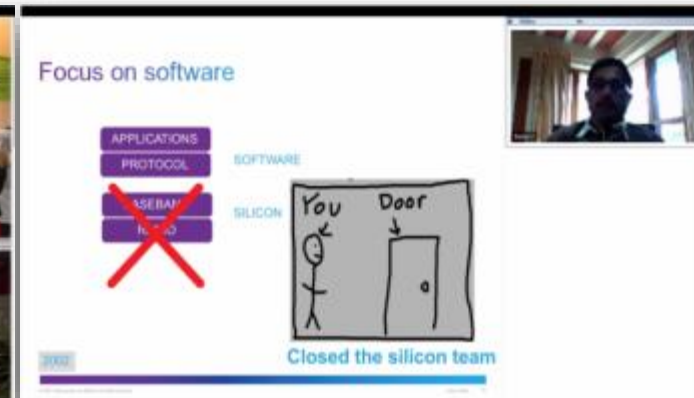


M1: What is Technopreneurship?
Understand how to become a Technopreneur
Identify the elements of Technopreneurship

M2: Imagine Like a Technopreneur
Discover how to put your creativity to work
Learn how to generate creative ideas

M3: Think Like an Technopreneur
Analyze business ideas to identify any flaws
Develop valuable ways of thinking

M4: A Great Idea of a Wonderful Opportunity?
Questions to ask and research to conduct
Value of market research



M5: Protecting and Running Your Business
Design a business plan
Summarize important questions used to develop a business plan or grow a business

M6: You and Your Business are Ready
Outline ways to test yourself, your team, your ideas, and the marketplace
Determine small steps you can take that are achievable, measurable, and repeatable

M7: You, Your Business, and the Market
Outline the elements of a business relationship
Explain the elements of a business contract and customer service

M8: Do You Need to Change or Keep on Going?
Evaluate the health of your business
Explain how to assess your business in the marketplace

C++ Programming



CPA: Programming Essentials in C++

- Curriculum developed by C++ Institute
- Course free of charge to students, instructors and academies
- Instructor-led online curriculum
- Aligns with C++ Certified Associate Programmer certification
- Targeted to entry-level IT professionals
- No previous programming knowledge required



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

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

Features

Target Audience: Upper secondary , 2-year and 4-year college students

Prerequisites: None

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 70 hours

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



CPA: Programming Essentials in C++ Target Audience

New and existing NetAcad students:

- Students in upper secondary schools, technical schools, and colleges or universities who want to learn the fundamentals of programming using the C++ language
- Students and alumni who want to pursue a career in IT and are looking to gain or expand in-demand, employable skills



Audience	Aptness
High School	✓
Vocational Schools	✓ ✓
College	✓ ✓ ✓
University	✓

C++ Programming Essentials Instructor Requirements

- No instructor training or skill test is required to teach the C++ Institute courses.
- Recommendations

Academic institutions provide quality instructors and facilities

Instructors study the course material

Take the CPA – C++ Certified Associate Programmer Certification prior to teaching the class so that they become familiar with the exam structure and know how to prepare their students for it.



Linux Courses

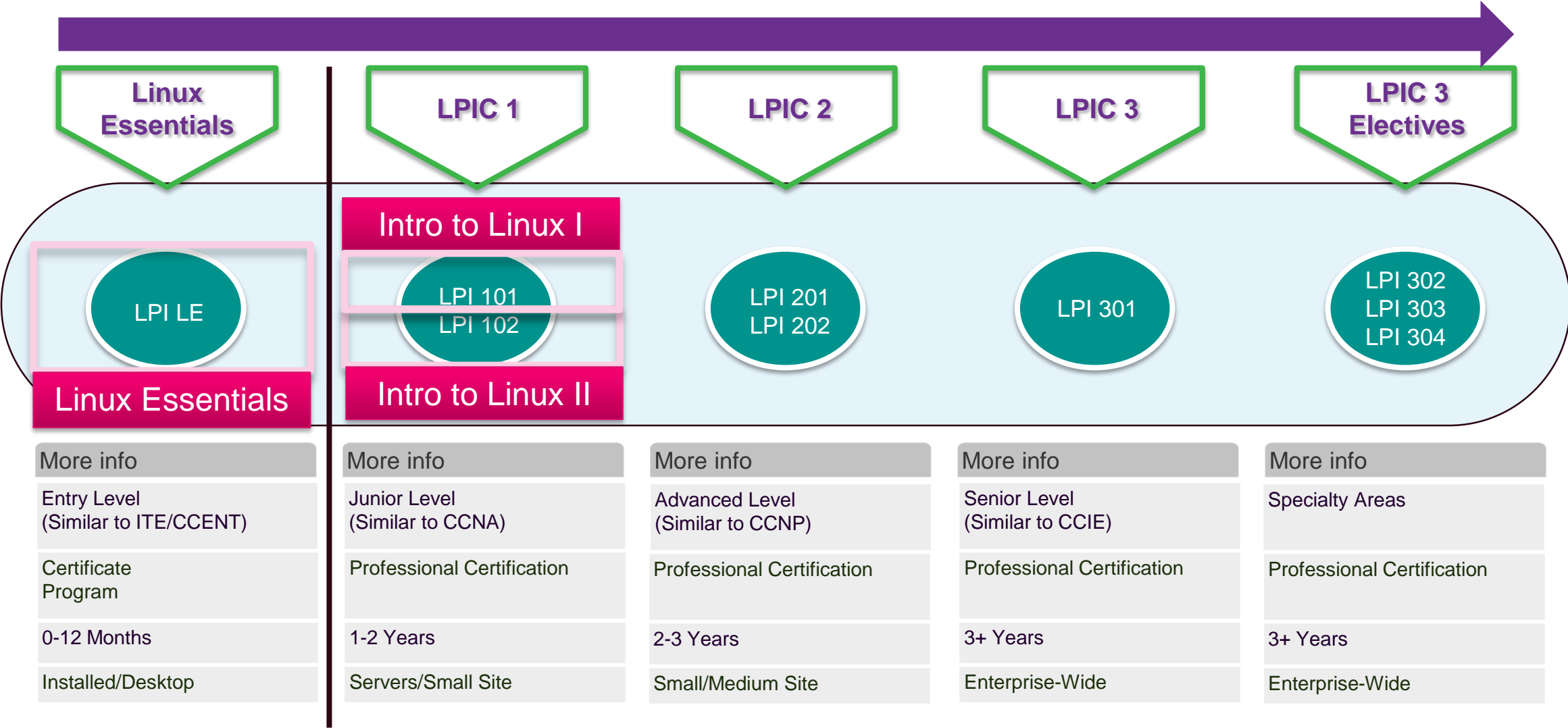


What are the Linux courses?

- Developed, offered and supported by NDG
Also provides access to Linux VMs
- Available to Cisco Networking Academy
Through Cisco NetSpace as an instructor-led course
- Aligned to LPI.ORG Linux Essentials Certificate
<https://www.lpi.org/linux-certifications/entry-level-credential/linux-essentials>



Certification alignment



NDG Linux Essentials

Course Overview

The 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 IoT 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



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

Overview

Linux Essentials Course

Features

Target Audience: Upper secondary and 2-year college students

Prerequisites: None

Languages: English

Course Delivery: Instructor -led or Self-paced

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Introduction to Networks

NDG Linux

Curriculum Overview

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

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

Features

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

Prerequisites: None, but NDG Linux Essentials or equiv. knowledge recommended

Languages: English

Course Delivery: Instructor-led and Self-paced

Fee: \$39.95 USD per learner, per course

Estimated Time to Complete: 140 hours

Career Prep

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


Aligned with two certifications: Linux Professional Institute LPIC-1 Certification and CompTIA Linux+ powered by LPI Certification.

Learning Components

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



Pricing to Cisco Networking Academies for NDG courses

- **NDG Linux Essentials Instructor Led Training** **Free**
- **NDG Linux Essentials Self-Paced Learner** **Free** 
Course for LPI.org Linux Essentials Professional Development Certificate
- **NDG Introduction to Linux I aligned to LPIC-1 / Linux+** **\$ 39.95**
Course for first certification exam
- **NDG Introduction to Linux II aligned to LPIC-1 / Linux+** **\$ 39.95**
Course for second certification exam

Linux Courses Instructor Requirements

- NDG requests that:
 - academic institutions provide quality instructors and facilities
 - instructors study the course material
 - instructors consider taking Linux Essentials professional development certificate
- No instructor training or skill test is required to teach Linux Courses



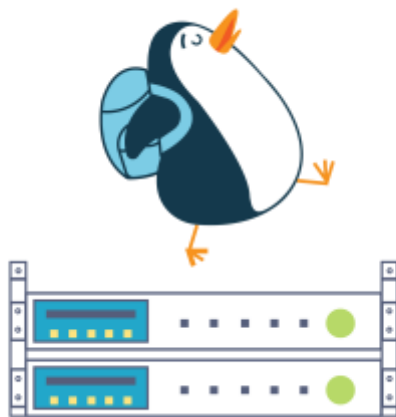
NDG Linux Unhatched



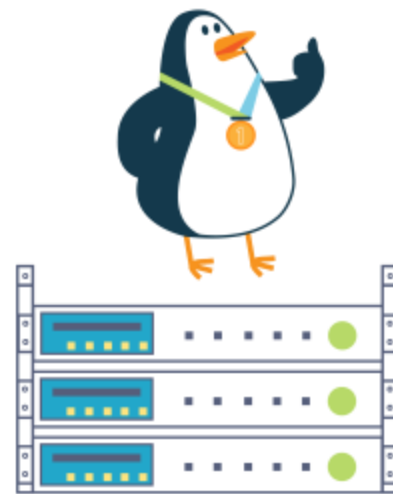
NDG Linux Courses



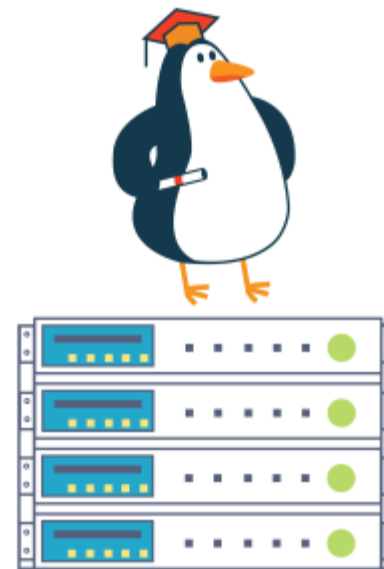
NDG Linux Unhatched



NDG Linux Essentials

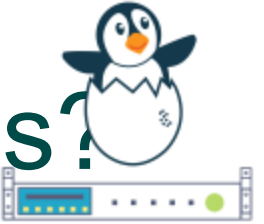


NDG Linux I



NDG Linux II

What's covered on the CompTIA A+ 900 series?



Basic Linux Commands

- ls
- grep
- cd
- shutdown
- pwd
- passwd
- mv
- Cp
- rm
- chmod
- chown
- iwconfig/ifconfig
- ps
- su/sudo
- apt-get
- vi
- dd



2.0 Other Operating Systems and Technologies

2.1 Identify common features and functionality of the Mac OS and Linux operating systems.

• Best practices

- Scheduled backups
- Scheduled disk maintenance
- System updates/App Store
- Patch management
- Driver/firmware updates
- Antivirus/anti-malware updates

• Tools

- Backup/Time Machine
- Restore/snapshot
- Image recovery
- Disk maintenance utilities
- Shell/Terminal
- Screen sharing

- Force Quit

• Features

- Multiple desktops/Mission Control
- Key Chain
- Spot Light
- iCloud
- Gestures
- Finder
- Remote Disc
- Dock
- Boot Camp

• Basic Linux commands

- ls
- grep

- cd
- shutdown
- pwd vs. passwd
- mv
- cp
- rm
- chmod
- chown
- iwconfig/ifconfig
- ps
- su/sudo
- apt-get
- vi
- dd

Free module to teach basics of Linux aligned to A+ certification.



Printing Working Directory

The `pwd` command prints the working directory, which is the current directory used by the shell:

```
pwd [OPTIONS]
```

```
sysadmin@localhost:~$ pwd
/home/sysadmin
```

After using the `cd` command to change directories, the `pwd` command can be used to verify the change.

```
sysadmin@localhost:~$ cd /etc/calendar
sysadmin@localhost:/etc/calendar$ pwd
/etc/calendar
```

Notice our virtual machines employ a prompt that displays the current working directory, emphasized with the color blue. In the first example, you can see that `~` is equivalent to `/home/sysadmin`, as it represents the user's home directory.

◀ Previous

Next ▶

```
* Starting domain name service... bind9 [ OK ]
Welcome to Ubuntu 14.04 LTS (GNU/Linux 3.13.0-79-generic x86_64)

* Documentation:  https://help.ubuntu.com/

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

This lab has two user accounts (username :: password )

root      :: netlab123
sysadmin  :: netlab123

Press the [Enter] key to begin...
```

Available in IT Essentials Course



IT Essentials

Chapter 10
Mobile, Linux, and OS X Operating Systems

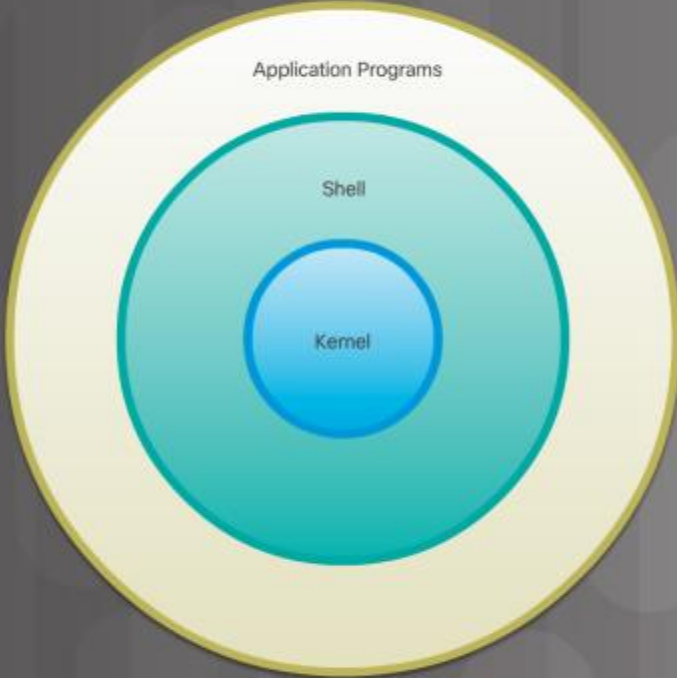
▶ **10.4**
Linux and OS X Operating Systems

▶ **10.4.1**
Linux and OS X Tools and Features

▶ **10.4.1.3**
Overview of Linux and OS X CLI



Unix High Level Diagram



The diagram illustrates the Unix architecture as three concentric circles. The innermost circle is blue and labeled "Kernel". The middle circle is light blue and labeled "Shell". The outermost circle is yellow and labeled "Application Programs".

Note: To experience a Linux command line interface in your web browser, return to class and visit the NDG Linux CompTIA A+ supplemental module.

Linux and OS X File Systems




Linux and OS X have unique file systems.

The commonly used file systems in Linux are ext3 and ext4 (third and fourth extended file system). They are journaled file systems that keep journals, or logs, of all the changes about to be made to the file system. These journals minimize the risk of file system corruption in the event of a sudden power loss because the journals can be used to apply the changes after power is restored. Both filesystems can support large file sizes up to 32 TiB (tebibytes) for ext4.

HFS+ (Hierarchical File System Plus) is the principle file system used by OS X. Like ext3 and ext4, HFS+ also supports journaled volumes. HFS+ volumes can support large file sizes up to almost 8 EiB (exbibyte) in OS X 10.4 and later.

1 2 3

Figures



Available in IT Essentials Course



▼ Course Completion



Course Feedback

100 pts

▼ Final Exam

Prerequisites: Course Completion



Final Exam

100 pts

▼ Career Resources for NetAcad Alumni



Career Resources for NetAcad Alumni

▼ NDG Linux CompTIA A+



NDG Linux Module for CompTIA A+

Internet of Things



IoT Foundation

“If you think that the internet has changed your life, think again. The IoT is about to change it all over again!”

— Brendan O’Brien, Chief Architect & Co-Founder, Aria Systems

Career Opportunities

The installation and operation type job families will continue to merge with networking job families. Knowledge in these areas will remain a great fit for entry level technology careers and career growth into more advanced roles.

Foundation for:

Field Technician, IoT Operations, IoT Security Operations.

Decide courses based on student starting point and learning goal:

Exploratory

- Intro to IoT
- Intro to Cybersecurity

Essential Skills

- CPA Programming Essentials in C++
- Networking Essentials

IoT Fundamentals

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

Networking

- CCENT certification



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.

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

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

Languages: Arabic, Chinese-S, Chinese-T, English, French, **German**, 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 CCNA R&S Introduction to Networks

Planned

- IoT Fundamentals:
Big Data and Analytics



- IoT Fundamentals:
Connecting Things



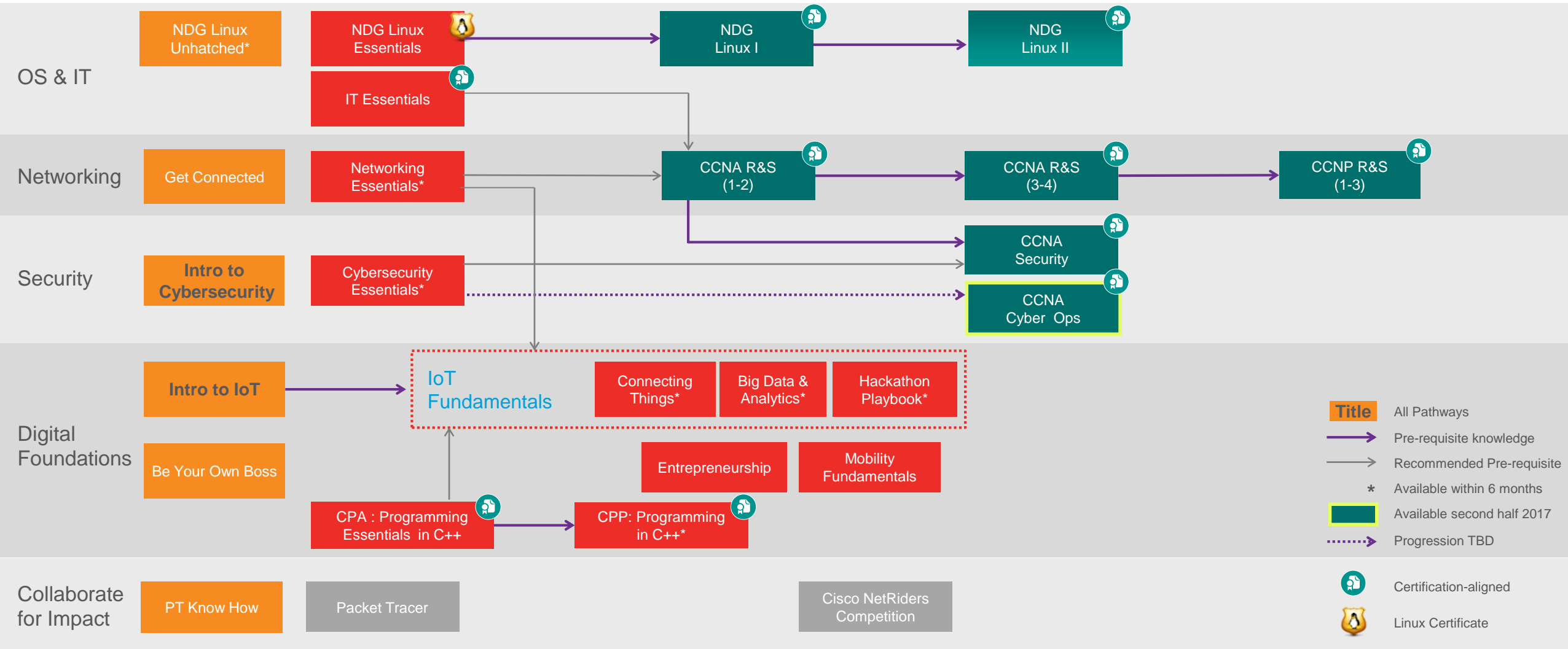
- IoT Fundamentals:
Hackathon Playbook

Workshoprunde 1
17.30 – 18.30
Hackathons Session
OSZ IMT & IT-Bildungsnetz
D416

Workshoprunde 3-4
Tomorrow 9.00 – 11.15
IoT Prototyping Workshop
Eugene Morozov
F112

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
- Security, Voice or Wireless Engineer



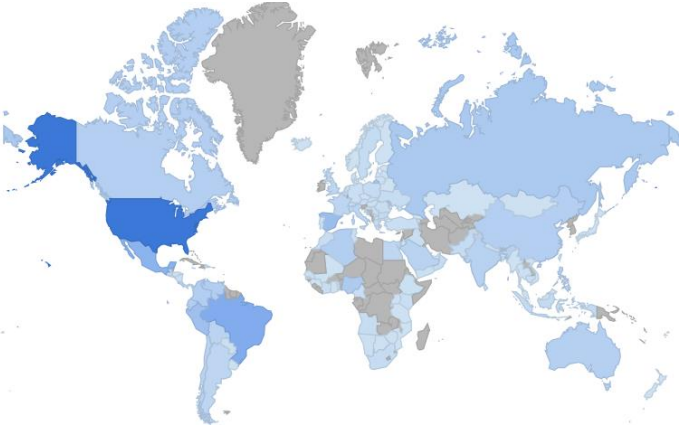
Collaboration and Professional Development



Global IPD Week

- Once per quarter
- Deep dives on NetAcad Offerings
- Updates on NetAcad
- Ran by the Technical team
- Open to all instructors
- Translated sessions

Next edition: 26-30 September
Focus on PT7.0



Danke.



Cisco Networking Academy
Mind Wide Open