

Course Descriptions

Cisco IT Essentials

IT Essentials curriculum provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level ICT professionals. The curriculum covers the fundamentals of computer hardware and software as well as advanced concepts such as security, networking, and the responsibilities of an ICT professional.

The curriculum includes the following features:

- Students develop working knowledge of how computers operate, how to assemble computers, and how to troubleshoot hardware and software issues.
- Hands-on labs and virtual learning tools help students develop critical thinking and complex problem-solving skills.
- The course emphasizes the practical application of skills and procedures needed to install and upgrade hardware and software and troubleshoot systems.
- Cisco Packet Tracer simulation-based learning activities allow students to experiment with network designs and configurations.
- Interactive assessments provide immediate feedback to support the evaluation of acquired knowledge and skills.

CCNA Introduction to Networks

Introduction to Networks (ITN) is the first course in the Cisco CCNA Routing and Switching curriculum teaching students the architecture, structure, functions and components of the Internet and other computer networks. By the end of the course, students will be able to build simple LANs, perform basic **configurations for routers and switches, and implement IP addressing schemes.**

CCNA Routing & Switching Essentials

Routing and Switching Essentials is the second course in the CCNA Routing and Switching curriculum teaching students how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing.

CCNA Scaling Networks

Scaling Networks is the third course in the CCNA Routing and Switching curriculum teaching students how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP.

CCNA Connecting Networks

Connecting Networks is the fourth and final course in the CCNA Routing and Switching curriculum covering the WAN technologies and network services employed by converged applications in a complex network. By the end of this course, students will be able to configure and troubleshoot network devices and resolve common issues with data link protocols.

NDG Linux Essentials

The Linux Essentials Course, developed by NetAcad partner NDG, teaches students the fundamentals of the Linux operating system and command line, and basic open source concepts. It's designed for students who want a comprehensive introduction to the Linux operating system.

This 16-chapter course uses a "learn by doing" approach. Each learner has hands-on access to the Linux virtual machine to practice, explore, and test Linux command-line concepts. From the fourth chapter on, the course provides step-by-step labs to help students build knowledge progressively and learn Linux commands that require practice to master.

This course aligns with the Linux Professional Institute (LPI) Linux Essentials Professional Development Certificate. To learn more about this certificate, visit www.lpi.org/LE

Introduction to Cybersecurity

The demand for cybersecurity experts has grown three times faster than any other job role in ICT, and training a cybersecurity workforce is a priority of many governments. As we become increasingly reliant on technology and cyberspace to conduct our affairs, we want to safeguard against interruptions in the process.

Introduction to Cybersecurity covers trends in this growing field and demonstrates the need for cybersecurity skills in various industries.

Concepts are presented through activities and videos, with built-in assessments to test your knowledge.

After completing this course, you'll be able to:

- Explain the global implications of cyber threats
- Explain ways that networks may be vulnerable to attacks
- Explain the impact of cyberattacks on industries
- Explain Cisco's approach to threat detection and defense
- Explain why cybersecurity is a growing profession
- Explain the opportunities for pursuing network security certifications

Introduction to the Internet of Everything (IoE)

The Introduction to the Internet of Everything course provides an overview of the concepts and challenges of the transformational IoE economy. The course discusses the Internet and its evolution to the interconnection of people, processes, data, and things that forms the Internet of Everything.

The course introduces the concept of a network foundation connecting billions of things and trillions of gigabytes of data to enhance our decision making and interactions. Course modules describe how IOE drives the convergence between an organization's operational technology (OT) and information technology (IT) systems, the business processes for evaluating a problem and implementing an IoE solution, and the machine-to-machine (M2M), machine-to-people (M2P), and people-to-people (P2P) connections in an IoE solution.

After completing this course, students will be able to:

- Describe the Internet and its evolution to the Internet of Everything
- Explain the interconnection of people, process, data, and things, the four pillars that form the Internet of Everything
- Explain how things that are non-IP-enabled and IP-enabled devices can be connected to a network to communicate in the Internet of Things
- Explain programming and show a simulated version of the Cisco Coffee JavaScript application
- Explain the steps to evaluate and implement an IoE solution
- Explain security concerns that must be considered when implementing IoE solutions

- Describe the M2M, M2P and P2P interactions of a modeled winery and review an example of an IoE solution at a modeled winery
- Explain the concept of prototyping and why this is critical in the IoE market

Be Your Own Boss Technopreneur Series

If you've dreamed of running your own tech business one day, this series of modules will teach you what it takes to succeed. Invaluable insights and advice are shared by notable technopreneurs around the world who describe the steps needed to launch and grow their businesses, and lessons learned along the way.

The series consists of 8 modules that provide a glimpse into the mindset of a technopreneur and important business considerations. Each module is followed by a quiz to check your understanding.

Entrepreneurship

The Entrepreneurship course is designed to supplement the skills gained through the core NetAcad ICT curricula and help students prepare for new career opportunities. It teaches critical business and financial skills, attitudes, and behaviors to help students develop an entrepreneurial mindset that can empower them to improve their overall quality of life.

Entrepreneurship incorporates a new approach to teaching and learning entrepreneurial skills with interactive, online case studies designed to help students learn business skills and apply networking capabilities within the context of starting a business.

The case studies introduce basic business and financial concepts through activities and scenarios that cultivate and reinforce the critical thinking skills required to become a successful entrepreneur. The Entrepreneurship case studies promote:

- Increased self-confidence and personal motivation
- Improved leadership skills and financial literacy
- Greater mastery of technical skills through applied practice
- Inspiration to start a small business

Get Connected

This introductory course focuses on getting students connected to computers and the Internet. It allows students to experience the fun and value of sharing and interacting with others using common software applications and social media sites. The curriculum provides a first step for students who want an introduction to the digital world with networks as a base for connecting people and things.

After completing this course, students will be able to:

- Identify different types of computer systems, internal components, and peripherals.
- Understand the directory structure of Microsoft Windows and how to work with files and folders using a text editor.
- Understand computer networking, how to browse and search the Internet, and how to use email.
- Create and use various types of social media accounts, including Facebook, LinkedIn, and YouTube.
- Identify common problems and implement simple solutions for hardware, software, and networks.

Packet Tracer 101

This is the first of the "Packet Tracer Know How Series" community developed courses.

Packet Tracer 101 is designed for new users of Packet Tracer for self-study and familiarization of Packet Tracer. It includes 3 chapters, 1 hands-on activity, 1 quiz and a survey.

By taking this course, students will get a basic understanding of Packet Tracer:

- the navigation of main user interfaces
- the difference between logical views and physical views
- how to build a simple network topology
- how to complete a Packet Tracer Activity

Mobility Fundamentals Series

The Mobility Fundamentals Series provides an introduction to mobility technologies & applications including: wireless technology concepts, wireless LAN design, mobility applications, and configuration & troubleshooting. A foundational knowledge of mobility and wireless technologies are essential components in the age of Internet of Everything.

Currently available modules:

- **Module 1: Wireless Technologies and Standards**
Bogdan Doinea, Cisco Systems Engineer, guides you through the evolution of wireless communications and explains the standards and technologies enabling the mobile phenomenon that impacts the way we work, learn and play.
- After completing this course, students will:
 - Understand Wireless Technologies
 - Understand Wireless Local Area Network (LAN) Standards