These short courses from the Cisco Systems Networking Academy Program introduce participants to computer networking, particularly local area networking (LAN), internet, network security and IP telephony. Courses are aligned with the Cisco Career Certifications and are designed to prepare participants intending to sit the certification exams.

At the Cisco Certified Networking Associate level (CCNA) participants have the ability to install, configure, operate and troubleshoot medium-size routed and switched networks, including implementation and verification of connections to remote sites in a wide area network (WAN).

At the Cisco Certified Networking Professional level (CCNP) participants construct, configure and troubleshoot more complex routed and switched networks. They are introduced to more complex topics such as Internet Protocol version 6 (IPv6), route manipulation and Border Gateway Protocol (BGP).

A Cisco Certified Voice Professional (CCVP) has advanced knowledge and skills and can help create a telephony solution that is transparent, scalable, and manageable.

RMIT also offers the Cisco specialisation course for CCNA Security as well as the introductory course in IT Essentials: PC Hardware and Software (A+ Training).

Exams are not included in the program and are conducted externally.

Our Cisco training courses prepare learners for:

**CompTIA A+ exams**
- 220-701 (Essentials)
- 220-702 (Practical Application)

**Cisco Certified Networking Associate (CCNA) exams**
- 640-802 (CCNA Composite Exam)
- ICND1 640-822
- ICND2 640-816

**Cisco Certified Networking Associate (CCNA) specialised path exam**
- CCNA Security V2.0 – IINS 640-554 (Implementing Cisco IOS Network Security (IINS V2.0))
- CCNA Voice – ICOMM 642-461 (Introducing Cisco Voice and Unified Communications Administration v8.0 (ICOMM 8.0))

**Cisco Certified Networking Professional (CCNP) exams**
- 642-902 ROUTE (Implementing Cisco IP Routing)
- 642-813 SWITCH (Implementing Cisco IP Switched Networks)
- 642-832 TSHOOT (Troubleshooting and Maintaining Cisco IP Networks)

**Cisco Certified Voice Professional (CCVP) exams**
- 642-437 CVOICE v8.0 (Implementing Cisco Voice Communications and QoS v8.0 CVOICE v8.0)
- 642-447 CIPT1 v8.0 (Implementing Cisco Unified Communications Manager, Part 1 v8.0 – CIPT1 v8.0)
- 642-457 CIPT2 v8.0 (Implementing Cisco Unified Communications Manager, Part 2 v8.0 – CIPT2 v8.0)
- 642-427 TVOICE v8.0 (Troubleshooting Cisco Unified Communications v8.0 TVOICE v8.0)
- 642-467 CAPPS v8.0 (Integrating Cisco Unified Communications Applications v8.0 CAPPS v8.0)
IT Essentials: PC Hardware and Software (A+ Training)
This provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level information and communication technology (ICT) professionals. The curriculum covers the fundamentals of PC technology, networking, and security, and also provides an introduction to advanced concepts.

Students who complete this course will be able to describe the internal components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software. Students engage in practical lab sessions where learning tools such as Virtual Laptop and Virtual Desktop are used to help develop critical thinking and complex problem solving skills. The program is designed to prepare participants for the CompTIA A+ certification exams.

CCNA Training
CCNA: (640-802)
The Cisco CCNA Exploration curriculum is designed for Cisco Networking Academy students seeking entry-level information and communication technology (ICT) skills.
CCNA Exploration is designed for students with advanced problem solving and analytical skills, such as students pursuing degrees in engineering, information technology, math, or science. Students are expected to know binary math and understand the concept of algorithms.

CCNA Exploration is composed of four courses: Network Fundamentals, Routing Protocols and Concepts, LAN Switching and Wireless, and Accessing the WAN.
After completing all four courses of CCNA Exploration, students will be prepared to take the Cisco CCNA certification (642-802) exam.

CCNA1: Network Fundamentals
Participants will understand how to communicate in a network-centric world. They will also gain knowledge and skills to describe the functions of the seven layers of the OSI reference model; describe physical and logical addresses and identify key differences between them; identify different network topologies; transmission media (copper, optical and wireless) and signal losses; design Local Area Networks; describe different classes of IP addresses and subnetting; define flow control and describe the collision detection mechanisms used in networking and identify the functions of the TCP/IP protocols in this accelerated course.

CCNA2: Routing Protocols and Concepts
Participants will examine router elements (RAM, ROM, CDP); describe connection-oriented network service and connectionless network service; control router passwords, configure router identification and banner; check an initial configuration using the setup command; configure and verify IP addresses; configure VLSM and Routing Protocols (RIPV2, OSPF and EIGRP) and configure physical and loopback interfaces.

CCNA3: LAN Switching and Wireless
Participants will learn to describe LAN switching theory and benefits of VLANS, Virtual Trunking Protocol, Spanning Tree Protocol; Level 1 troubleshooting service.

CCNA4: Accessing the WAN
Participants will learn to differentiate between the following WAN services: HDLC, PPP, Frame Relay; working of DHCP, NAT/PAT Technologies; list commands to monitor Frame Relay operation in the router; identify PPP operations to encapsulate WAN data on Cisco routers; configure Access-lists.

CCNA Security V2.0 (640-554)
CCNA Security provides a next step for individuals who want to enhance their CCNA-level skill set and help meet the growing demand for network security professionals. The curriculum provides an introduction to the core security concepts and skills needed for the installation, troubleshooting and monitoring of network devices to maintain the integrity, confidentiality and availability of data and devices. CCNA Security helps prepare students for entry-level security career opportunities and the globally recognised Cisco CCNA Security certification.
This course is a hands-on, career-oriented e-learning solution with an emphasis on practical experience to help students develop specialised security skills, along with critical thinking and complex problem solving skills.

CCNA Security is a blended curriculum with both online and classroom learning. Students who enrol in CCNA Security are expected to have CCNA-level networking concepts knowledge and skills, along with basic PC and Internet navigation skills.

CCNA Voice V8.0 (640-461)
The Introducing Cisco Voice and Unified Communications Administration (ICOMM v8.0) 640-461 course is associated with the CCNA Voice certification. This course focuses on the architecture, components, functionalities and features of Cisco Unified Communications solutions. It also prepares the student to perform tasks such as system monitoring, moves, additions and changes on Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Unity Connection, and Cisco Unified Presence.

CCNP Training
The CCNP courses are designed for network engineers with at least one year of professional work experience, who are ready to advance their skills and work independently on complex network solutions. The courses that can be taken to achieve CCNP certification are:

CCNP1: ROUTE (642-902)
Participants will learn to plan, configure and verify the implementation of secure enterprise LAN and WAN routing solutions using a range of routing protocols as well as the configuration of solutions to support branch offices and mobile workers. The course prepares for the CCNP exam called ROUTE (642-902).

CCNP2: SWITCH (642-813)
Participants will learn to plan, configure and verify the implementation of complex enterprise switching solutions using Cisco's Campus Enterprise Architecture. The course also covers secure integration of VLANs, WLANs, voice and video into campus networks. There is no e-learning associated with the SWITCH course. The course prepares for the CCNP exam called SWITCH (642-813).

CCNP3: TSHOOT (642-832)
Participants will learn to plan and perform regular maintenance on complex enterprise routed and switched networks; use technology-based practices; a systematic ITIL-compliant approach to perform network troubleshooting. Extensive labs provide for hands-on learning and reinforce troubleshooting skills. The program prepares you for the CCNP exam called TSHOOT (642-832).
CCVP Training
Cisco Certified Voice Professional (CCVP) delves deeper into the knowledge and skills required to integrate into underlying network architectures. With a CCVP certification, a network professional can help create a telephony solution that is transparent, scalable, and manageable. The CCVP curriculum focuses on Cisco Unified Communications Manager (formerly Unified CallManager), quality of service (QoS), gateways, gatekeepers, IP phones, voice applications, and utilities on Cisco routers and Cisco Catalyst switches. Additionally, the integration and troubleshooting of Cisco Unified Communications applications are now covered in the CCNP Voice; specifically the Cisco Unity Connection and Cisco Unified Presence applications. The courses that can be taken to achieve CCVP certification are:

CVOICE V8.0 (642-437)
This course prepares for the exam CVoice V8.0 (640-437). It will focus on how to implement and operate gateways, gatekeepers, Cisco Unified Border Element, Cisco Unified Communications Manager Express and QoS in a voice network architecture. Candidates can prepare for this exam by taking the CVOICE v8.0 Implementing Cisco Unified Communications Voice over IP and QoS v8.0 (CVOICE v8.0) 642-437 course.

CIPT1 8.0 (642-447)
This course prepares for the CIPT1 8.0 (642-447) exam. Installing and configuring a Cisco Unified Communications Manager solution in a single site and focuses primarily on Cisco Unified Communications Manager Release v8.0, the call routing and signaling component for the Cisco Unified Communications solution. Participants can prepare for this exam by taking the Implementing Cisco Unified Communications Manager, Part 1 v8.0 (CIPT1 v8.0) 642-447 course.

CIPT2 8.0 (642-457)
This course prepares for the CIPT2 8.0 (642-457) exam. It focuses on implementing a Cisco Unified Communications Manager solution in a multisite environment, applying a dial plan for a multisite environment, configuring durability for remote sites during WAN failure, and implementing solutions to reduce bandwidth requirements in the IP WAN.

TVOICE V8.0 (642-427)
This course prepares for the Troubleshooting Cisco Unified Communications Systems (TVOICE V8.0) (642-427) exam. Participants will study troubleshooting on Cisco Unified Communications systems and offer solutions in different deployments. Also covered is troubleshooting methodology, triage, resources, tools, and fixes for Cisco Unified Communications Manager and the new v8.0 features such as Call Control Discovery, SIP Precondition, Extension Mobility Cross Cluster as well as dial plan troubleshooting including globalised call routing.

CAPPS v8.0 (642-467)
This course prepares for the Troubleshooting Integrating Cisco Unified Communications Applications v8.0 (CAPPS v8.0) exam. It covers how to integrate the new Unified Communications Applications, which are part of the new version 8.0 Cisco Voice software.
WHY CHOOSE RMIT UNIVERSITY?

Flexible delivery options
RMIT University is a specialist in delivering vocational programs to industry. With a wealth of local and international experience, RMIT University can tailor a solution that is suitable for your business.

Electronic delivery
RMIT University designs programs utilising a variety of methods including on-line, video and live satellite lectures, CD and DVD based learning materials, printed distance education materials, and mixed mode delivery
The Learning Hub is RMIT University’s core e-learning tool. It provides a variety of on-line learning resources including:
» a centralised area to upload and manage course content
» quizzes and surveys
» discussion boards and chat rooms
» assignment submission tools
» group work spaces.
More than an on-line library, the Learning Hub allows Participants to create blogs, participate in on-line discussions, as well as develop wiki resources to share and develop their knowledge with the group.

In-house delivery
To minimise staff time away from work RMIT University can deliver training in the workplace rather than in university facilities. The level of involvement can be tailored to suits your needs, but can go beyond merely setting up a classroom at your offices.
Learning can be done “on the job”, with options such as mentoring and coaching available for staff, helping them integrate their newly acquired concepts and skills with their work.
RMIT University prides itself on contextualising programs to meet the needs of specific clients. This can be taken even further by integrating programs into the normal activities of the business.
These options will help your organisation utilise the new skills of your staff – bringing the concepts out of the classroom and into the workplace.

FURTHER INFORMATION
Herb Weber or Mohammad Hassan
School of Engineering TAFE
RMIT University
Tel. 03 9925 4386 or 03 9925 4700
Email: herb.weber@rmit.edu.au
mohammad.hassan@rmit.edu.au
www.rmit.edu.au/engineeringtafe/shortcourses/ciscoacademy