

---

## Cisco CCNA Routing and Switching Boot Camp (CCNAX - Accelerated)

**Duration: 5 Days**    **Course Code: CCNABC**    **Version: 1.1**

---

### Overview:

Based on our Cisco ICND1 and ICND2 courses, our CCNA Boot Camp is an intensive program, designed to help you achieve your CCNA certification in the shortest period of time possible. To maximize your classroom experience and ensure that you get comprehensive coverage of the CCNA materials, our three-step, blended learning approach to the CCNA Boot Camp consists of:

Pre-Class Activity Classroom Instruction  
Post-Class Activity

The Pre-Class Activity provides you with approximately ten hours of ICND1 Self-Paced e-Learning content including lab practice. The pre-Class activity gives you a firm foundation and get you focused and prepared to get the most out of Classroom Instruction.

Classroom Instruction includes intensive instructor-led training and hands-on labs from ICND1 and 2 where you'll learn to install, configure, operate, and troubleshoot medium-sized routed and switched networks. You'll also learn the basics of wireless networking as well as mitigating security threats.

Following Classroom Instruction, we include next to the ICND1 Self-Paced e-Learning also ICND2 Self-Paced e-Learning, so you can continue your studying after your Classroom instructions for 3 months.

During the entire CCNABC program you will also get access to Global Knowledge CCNA Xtra learning content. This content includes Quick Reference Videos, Whitepapers, Simulations, supporting reading materials from the public domain and Pre-Self analysis.

Last but not least we include one exam voucher 640-802 CCNA for free!

We have delivered an Authorized CCNA Boot Camp longer than any other Cisco Partner, the best available, to make sure you achieve your goals.

Please note: The CCNABC is an accelerated program that delivers 10 days of training in 5. As a result the start and finish times may vary dependent on delegate skills / experience and speed of learning but typically will start at 8am and end at 5pm. It is imperative that you complete the pre-course work prior to attending. The content covers items essential to the successful running of the program and will enhance your learning experience.

Please be aware of the requirements for running our CCNA e-learning content on your computer. IE 7 or 8 is required. Our e-learning will not run on Apple computers.

---

### Target Audience:

This course is intended for System Engineers who will install, operate and troubleshoot a small branch to medium Size branch office Enterprise network including configuring several switches and routers, connecting to a WAN and implementing network security.

---

### Objectives:

- Describe how networks function, identifying major components, functions of network components, and the OSI reference model
- Using the host-to-host packet delivery process, describe issues that are related to increasing traffic on an Ethernet LAN and identify switched LAN technology solutions to Ethernet networking issues
- Describe the reasons for extending the reach of a LAN, and the methods that can be used, with a focus on RF wireless access
- Describe the reasons for connecting networks with routers, and how routed networks transmit data through using TCP/IP
- Describe the function of WANs and the major devices of WANs, and configure PPP encapsulation, static and dynamic routing, and PAT and RIP routing
- Use the CLI to discover neighbors on the network and manage
- Expand the switched network from a small LAN to a medium-sized LAN with multiple switches, supporting VLANs, trunking and spanning tree
- Describe routing concepts as they apply to a medium-sized network and discuss considerations when implementing routing on the network
- Configure, verify and troubleshoot OSPF
- Configure, verify and troubleshoot EIGRP
- Determine how to apply ACLs based on network requirements, and to configure, verify, and troubleshoot ACLs on a medium-sized network
- Describe when to use NAT or PAT on a medium-sized network, and configure NAT or PAT on routers

router startup and configuration

- Review how to configure and troubleshoot a small network

- Identify and implement the appropriate WAN technology based on network requirements

---

### Prerequisites:

- Basic computer literacy, including the use of general office software such as Microsoft Word and Microsoft Excel
- Basic Windows navigation and keyboard literacy skills
- Basic Internet usage skills
- Basic email usage skills

We strongly encourage the attendee to gain the foundation knowledge needed by taking the provided ICND1 e-learning prior to attending the ILT Class.

### Testing and Certification

- 640-802 CCNA - This is a composite exam consisting of both ICND1 & ICND2

---

### Follow-on-Courses:

On completion of the CCNABC delegates may wish to consider broadening their knowledge in specific technology areas and should consider the courses below.

- IINS - Implementing Cisco IOS Network Security
- IUWNE - Implementing Unified Wireless Networking Essentials
- ICOMM - Introducing Cisco Voice and Unified Communications Administration

## Content:

### Labs (ICND1)

Lab 1-1: Using Windows Applications as Network Tools  
Lab 1-2: Observing the TCP Three-Way Handshake  
Lab 1-3: Observing Extended PC Network Information  
Lab 2-1: Connecting to Remote Lab Equipment  
Lab 2-2: Performing Switch Startup and Initial Configuration  
Lab 2-3: Enhancing the Security of Initial Switch Configuration  
Lab 2-4: Operating and Configuring a Cisco IOS Device  
Lab 4-1: Converting Decimal to Binary and Binary to Decimal  
Lab 4-2: Classifying Network Addressing  
Lab 4-3: Computing Usable Subnetworks and Hosts  
Lab 4-4: Calculating Subnet Masks  
Lab 4-5: Performing Initial Router Startup  
Lab 4-6: Performing Initial Router Configuration  
Lab 4-7: Enhancing the Security of the Initial Router Configuration  
Lab 4-8: Using Cisco SDM to Configure DHCP Server Function  
Lab 4-9:

### Medium-Sized Switched Network Construction (ICND2)

- Implementing VLANs and Trunks
- Improving Performance with Spanning Tree
- Routing Between VLAN's
- Securing the Expanded Network
- Troubleshooting Switched Networks

### Medium-Sized Routed Network Construction (ICND2)

- Reviewing Routing Operation
- Implementing VLSM

### Single Area OSPF Implementation (ICND2)

- Implementing OSPF
- Troubleshooting OSPF

### EIGRP Implementation (ICND2)

- Implementing EIGRP
- Troubleshooting EIGRP

### Access Control Lists (ICND2)

- Introducing ACL operation
- Configuring and troubleshooting ACL's

### Address Space Management (ICND2)

- Scaling the Network with NAT and PAT
- Transitioning to IPv6

### LAN Extension into a WAN (ICND2)

- Introducing VPN Solutions
- Establishing a Point-to-Point WAN Connection with PPP
- Establishing a WAN Connection with Frame Relay
- Troubleshooting Frame Relay WANs

### Labs (ICND2)

Lab 2-1: Configuring Expanded Switched Networks  
Lab 2-2: Troubleshooting Switched Networks  
Lab 4-1: Implementing OSPF  
Lab 4-2: Troubleshooting OSPF  
Lab 5-1: Implementing EIGRP  
Lab 5-2: Troubleshooting EIGRP  
Lab 6-1: Implementing and Troubleshooting ACLs  
Lab 7-1: Configuring NAT and PAT  
Lab 7-2: Implementing IPv6  
Lab 8-1: Establishing a Frame Relay WAN  
Lab 8-2: Troubleshooting Frame Relay WANs

## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

[info@globalknowledge.co.uk](mailto:info@globalknowledge.co.uk)

[www.globalknowledge.co.uk](http://www.globalknowledge.co.uk)

Global Knowledge, Mulberry Business Park, Fishponds Road, Wokingham Berkshire RG41 2GY UK