

	<b>Ontario Ministry of Education</b> <a href="http://www.edu.gov.on.ca/eng/">www.edu.gov.on.ca/eng/</a>		<b>Toronto District School Board</b> <a href="http://www.tdsb.on.ca">www.tdsb.on.ca</a>		<b>R.H. KING ACADEMY</b> <a href="http://schools.tdsb.on.ca/rhking/">http://schools.tdsb.on.ca/rhking/</a>
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### COURSE OF STUDY OUTLINE

<b>Department</b>	<i>Computer Studies</i>	<b>Course Type</b>	<i>Mixed</i>
<b>Teacher</b>	<i>Mr. Raptou</i>	<b>Grade</b>	<i>12</i>
<b>Course Title</b>	<i>Tech. Engineering: Networking</i>	<b>Credit Value</b>	<i>One</i>
<b>Course Code</b>	<i>TEN4M</i>	<b>Prerequisites</b>	<i>TEN3M</i>
<b>Ministry Document</b>	<i>CISCO Netacad Curriculum. ICND2.</i>		
<b>Learning Resources</b>	<i>Cisco.netacad.com and D2L</i>		
<b>Textbook Title/Cost</b>	<i>N/A</i>		

### Introduction

The Cisco Certified Network Associate Certification is achieved by either passing the single CCNA certification or by passing the Interconnecting Cisco Networking Devices Part (ICND) 1 and the ICND2 exams combined. By passing the ICND1 certification exam, students will achieve the Cisco Certified Entry Networking Technician (CCENT) status.

The Cisco Networking Academy CCNA courses are aimed to help individuals gain a thorough understanding of the CCNA and to help them pass the Certification exam. The Certification exam is the final exam to complete the certification course and a single attempt at this exam is the final component of each course. If students meet proficiency requirements for the Semester 2 Exploration final exam or the Semester 4 Exploration final exam they will be eligible for a 50% discount voucher for the certification exam.

### Course Outline

**CCNA ICND1 Interconnecting Cisco Network Devices 2 is CCNA 1 & CCNA 2 combined and effectively the first half of the CCNA certification via the 640-842 ICND1 exam**

#### CCNA 1 Network Fundamentals (TEN3M-Grade 11 term 1)

Living in a Network-Centric World  Communications Over the Networks OSI Application Layer Functionality OSI Transport Layer OSI Network Layer Addressing the Network – IPv4	Data Link Layer OSI Physical Layer Ethernet Planning and Cabling Networks  TCP/IP Transport and Configuring and Testing Your Network
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## CCNA 2 Routing Protocols and Concepts (TEN3M- Grade 11 term 2)

Introduction to Routing and Packet Forwarding Static Routing Introduction to Dynamic Routing Protocols Distance Vector Routing Protocols RIP version 1 VLSM and CIDR	RIPv2 The Routing Table: A Closer Look EIGRP Link-State Routing Protocols OSPF
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**CCNA ICND2 Interconnecting Cisco Network Devices 2 is CCNA 3 & CCNA 4 combined and effectively the second half of the CCNA certification via the 640-816 ICND2 exam**

## CCNA 3 LAN Switching and Wireless (TEN4M-Grade 12 term 1)

LAN Design Configure a Switch VLANs Implement VTP	Implementing Spanning Tree Protocols Implementing Inter-VLAN Routing Configuring a Wireless Router
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## CCNA 4 Accessing the WAN (TEN4M- Grade 12 term2)

PPP Frame Relay Enterprise Network Security Access Control Lists (ACLs)	Providing Teleworker Services  Implementing IP Addressing Services  Troubleshooting Enterprise Networks
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CCNA 1 is mainly content based. CCNA 2 to 4 are mainly hands on with the focus on being able to setup and configure a network. The course involves substantial lab and group work and it is important to attend classes.

### **Why do a CCNA through the Cisco Networking Academy Program?**

As with many of the large IT corporations, Cisco offers industry training and certification. The Cisco (CCNA) qualification is a world wide recognized entry level certification in the area of Network Engineering. Whilst there are no job guarantees, having this certification has the potential to offer leverage when applying for a new position or a promotion.

### **CISCO Assessment Requirements:**

- Completion of the online Module/Chapter tests
- Completion of the end of Semester online tests (Closed Book).
- Completion with 80% for the Semester Skills Tests Practical Tests (Closed Book).
- Completion with 80% of the Semester Case Study Projects.

### **Important Points regarding Preparation for Class**

It is stated, there are no prerequisites for the Networking Academy CCNA course however, a very basic understanding computers and a solid grade 10 level of mathematics is assumed.

Each CCNA semester's online content is broken up into chapters or modules as they are called. At the end of each of these is a quiz you can do by yourself but importantly there is an online chapter test. It is expected that you will complete all of the chapter tests with 80% or better. These tests should be attempted closed book during class in a reasonably short time frame. It is important to Pre-read each module as you go and it is essential to keep up to date with the chapter tests. If you fall behind they will become an unpleasant burden. Students will not be allowed to sit the end of semester tests until the Module/Chapter online tests are completed to the instructors satisfaction. To be successful in this course it is recommend students attend all classes and make good use of this time. Outside of class an additional 1-2 hours should be allowed for reading and doing lab work remotely per day.

### **Marking Scheme for your R.H. King Academy Mark**

<b>Online Tests</b>	<b>10%</b>
<b>Practical Test</b>	<b>20%</b>
<b>Assignments</b>	<b>20%</b>
<b>Written Tests</b>	<b>30%</b>
<b>Case Study</b>	<b>10%</b>
<b>Final online Exam</b>	<b>10%</b>