

CCNA 7: Introduction to Networks

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Course Description

Introduction to Networks (ITN) covers the architecture, structure, functions and components of the Internet and other computer networks. Students achieve a basic understanding of how networks operate and how to build simple local area networks (LAN), perform basic configurations for routers and switches, and implement Internet Protocol (IP).

Course Objectives

By the end of the course, students will be able to:

- Configure switches and end devices to provide access to local and remote network resources.
- Explain how physical and data link layer protocols support the operation of Ethernet in a switched network.
- Configure routers to enable end-to-end connectivity between remote devices.
- Create IPv4 and IPv6 addressing schemes and verify network connectivity between devices.
- Explain how the upper layers of the OSI model support network applications.
- Configure a small network with security best practices.
- Troubleshoot connectivity in a small network.

Course Outline

Module 1: Networking Today	Module 10: Basic Router Configuration
Module 2: Basic Switch and End Device Configuration	Module 11: IPv4 Addressing
Module 3: Protocols and Models	Module 12: IPv6 Addressing
Module 4: Physical Layer	Module 13: ICMP
Module 5: Number Systems	Module 14: Transport Layer
Module 6: Data Link Layer	Module 15: Application Layer
Module 7: Ethernet Switching	Module 16: Network Security Fundamentals
Module 8: Network Layer	Module 17: Build a Small Network
Module 9: Address Resolution	

Curriculum & Useful URLs

Students can access the curriculum on the Internet at [cisco.netacad.net](https://www.cisco.netacad.net) (there is no paper textbook). A screen name and password will be used to login into Cisco Network Academy which is Cisco's on-line learning environment.

Other Useful URLs:

🔗 Moodle: <https://moodle.helenaschools.org/>



Classroom Expectations

BE RESPONSIBLE

- ☞ Be seated when bell rings (5 or more minutes tardy = absent)
- ☞ No food or drinks except for those listed in handbook
- ☞ Take care of the equipment & clean up after yourself

BE INVOLVED

- ☞ **You have to be able to read the curriculum and complete on-line assessments, activities and labs to do well in this class. If you are unable to do this, this is not the class for you.**
- ☞ Stay awake
- ☞ Work hard on Cisco work the whole period
 - ☞ Don't use Cisco time to work on other classes.
 - ☞ Internet is only for Cisco work (see HHS AUP)
- ☞ **Cellphones and headphones are not allowed** – both interfere with being able to get the most out of the class

BE RESPECTFUL

- ☞ Compliment people instead of putting them down
- ☞ Don't be disruptive (out of seat, talking when I am talking, etc.)

BE A GRADUATE

- ☞ Don't cheat – all parties involved will receive a 0 if caught

GRADE CALCULATION

- ☞ Assignments 70% ☞ Quizzes/Tests 30%
- ☞ Semester Grade = Q1/Q3 40%, Q2/Q4 40% & Final 20%

GRADING Scale

- ☞ 100-92 = A 91-90 = A- 89-88 = B+ 87-82 = B 81-80 = B-
- ☞ 79-78 = C+ 77-72 = C 71-70 = C- 69-68 = D+ 67-62 = D
- ☞ 61-60 = D- 59 & below = F

LATE WORK

- ☞ 20% off on any assignment that is turned in late

ABSENCES

- ☞ Check assignments on my webpage
- ☞ New assignments: 2 days for 1st day missed; 1 for all others
 - ☞ Previously assigned work will be due on original due date
 - ☞ Previously scheduled tests will be taken on return to class