

# ITC0251

## Unit 3 Lab

### Introduction

LabSim Network Pro is used to provide a simulated, hands-on laboratory for the purposes of learning about important networking concepts. In an online environment it is impossible for students to work directly with a network in administrative scenarios. Therefore, LabSim is the tool that supports students in their pursuit to understand difficult concepts in an online environment.

Use of LabSim Network Pro requires a one-time registration process. You should have received an activation code from the bookstore (Words of Wisdom). Notify the bookstore immediately if you have not yet received your activation code. Contact them at [aiuonlinebooks@wordsofwisdombooks.com](mailto:aiuonlinebooks@wordsofwisdombooks.com).

Instructions for accessing LabSim can be found in the Course Materials section. You can also contact your instructor with any questions. You will have access to Network Pro for 36 months (3 years) from the date of registration.

Note that LabSim Network Pro is aligned with CompTIA's Network+ certification. Completing this lab will not qualify you to complete the exam. One must complete several courses in order to cover all the concepts included in the certification exam. Further, completing the coursework does not conclude with automatic certification. Those students who wish to pursue certification may do so outside the classroom. For those students that qualify, they may contact the Registrar's office for receipt of a discounted certification voucher honored by CompTIA.

**Hardware Requirements:** Refer [here](#) to verify that you meet the necessary Hardware Requirements. Note that you will need speakers.

You may complete the tasks in numerous iterations. You do not need to complete all the lab tasks in one sitting.

### Lab Description

Upon completion, you will:

- compare network topologies;
- connect wired devices;
- create, secure, select and configure wireless networks and adapters.

## Lab Tasks

Each Module contains numerous Sections. The last section in each Module is a Practice Exam. The Practice Exam is **not** required. Taking the Practice Exam is **optional**. The results of the Practice Exam do **not** impact your course grade one way or the other.

All Module Sections (excluding the last Section – Practice Exam) are required unless otherwise designated.

### Module 1.0 Networking Basics

Section 1.2 Network Topologies (Review video only: Section 1.2.1)

Section 1.4 Network Signaling (Review videos only: Section 1.4.1, 1.4.2)

### Module 4.0 Ethernet

Section 4.1 Ethernet (Review video only: Section 4.1.1)

Section 4.2 Ethernet Specifications (Review video and complete lab: Sections 4.2.1, 4.2.3)

Section 4.3 Connect Network Devices (Review video and complete lab: 4.3.1, 4.3.3)

### Module 10.0 Wireless Networking

Section 10.1 Wireless Concepts (Review videos only: Sections 10.1.1, 10.1.2)

Section 10.2 Wireless Standards (Review videos and demo only: Sections 10.2.1, 10.2.2, 10.2.3, 10.2.4)

Section 10.3 Wireless Configuration (Review video, demo and complete labs: Sections 10.3.1, 10.3.2., 10.3.3, 10.3.4, 10.3.5, 10.3.6)

Section 10.4 Wireless Network Design (Review videos and demo only: Sections 10.4.1, 10.4.2, 10.4.4)

Section 10.5 Wireless Network Implementation (Review video and demo only: Sections 10.5.1, 10.5.2)

The above Sections include a number of hands-on activities. Be sure to complete the following:

4.2.3 Reconnect to an Ethernet Network

4.3.3 Connect Network Devices

10.3.4 Create a Home Wireless network

10.3.5 Secure a Home Wireless Network

10.3.6 Configure Wireless Profiles