This course supports the assessment for TNV1. The course covers 6 competencies and represents 6 competency units.

Introduction

Overview
This course on the practices of designing, describing, evaluating, implementing, maintaining, and securing computer networks.

Watch the following video for an introduction to this course:

Competencies

This course provides guidance to help you demonstrate the following 6 competencies:

- **Competency 419.3.1: Network Topologies**
  The graduate distinguishes and explains network topologies, including protocols, ports, addressing schemes, routing, and wireless communication standards.

- **Competency 419.3.2: Media and Topologies**
  The graduate differentiates and explains physical and logical topologies, including wiring standards.

- **Competency 419.3.3: Network Devices**
  The graduate differentiates and installs/configures network devices.

- **Competency 419.3.4: Network Connectivity and Performance Methodologies**
  The graduate identifies appropriate methodologies for troubleshooting network connectivity and performance issues in a given network environment.

- **Competency 419.3.5: Network Troubleshooting Utilities and Analysis**
  The graduate uses hardware and software utilities to track and maintain network performance in optimized state.

- **Competency 419.3.6: Network Security Devices**
  The graduate differentiates and explains network security devices and methods for troubleshooting common security threats.

Course Instructor Assistance

As you prepare to successfully demonstrate competency in this subject, remember that course instructors stand ready to help you reach your educational goals. As subject matter experts, mentors enjoy and take pride in helping students become reflective learners, problem solvers, and critical thinkers. Course instructors are excited to hear from you and eager to work with you.

Successful students report that working with a course instructor is the key to their success. Course instructors are able to share tips on approaches, tools, and skills that can help you apply the content you're studying. They also provide guidance in assessment preparation strategies and troubleshoot areas of deficiency. Even if things don't work out on your first try, course instructors act as a support system to guide you through the revision process. You
should expect to work with course instructors for the duration of your coursework, and you are encouraged to contact them as soon as you begin. Course instructors are fully committed to your success!

Preparing for Success

The information in this section is provided to detail the resources available for you to use as you complete this course.

Learning Resources

The learning resources listed in this section are required to complete the activities in this course. For many resources, WGU has provided automatic access through the course. However, you may need to manually enroll in or independently acquire other resources. Read the full instructions provided to ensure that you have access to all of your resources in a timely manner.

If you decide to use other learning resources, particularly those found online, make certain that none qualify as a brain-dump. Using them can result in academic sanctions and loss of your certification.

Please see the full CompTIA Candidate Agreement.

Automatically Enrolled Resources

You can access the learning resources listed in this section by clicking on the links provided throughout the course. You may be prompted to log in to the WGU student portal to access the resources.

SkillSoft and Books 24x7

You will access SkillSoft items at the activity level within this course. For more information on accessing SkillSoft items, please see the “Accessing SkillSoft Learning Resources” page.

The following Books24x7 e-texts will be used in this course:


*Note: These e-texts are available to you as part of your program tuition and fees, but you may purchase hard copies at your own expense through a retailer of your choice. If you choose to do so, please use the ISBN listed to ensure that you receive the correct edition.*

LabSim

You will be linked to the following resource within the activities for this course:

- Network Pro (Exam N10-005)

*Note: To use LabSim (i.e., the primary learning resource for this course), your computer must:*

- be running Microsoft Windows XP/Vista/7 and
meet the minimum hardware and software system requirements provided on the LabSim website.

**uCertify**

You will access the following resource from uCertify at the activity level within this course:

- N10-005 CompTIA Network+ (2012)

*Note: The online version of the uCertify learning resource is provided to you by WGU as part of your enrollment. If you wish to use the offline version, you may purchase it yourself from uCertify.*

**Pacing Guide**

The pacing guide suggests a weekly structure to pace your completion of learning activities. It is provided as a suggestion and does not represent a mandatory schedule. Follow the pacing guide carefully to complete the course in the suggested timeframe.

- **Pacing Guide: Networks**

*Note: This pacing guide does not replace the course. Please continue to refer to the course for a comprehensive list of the resources and activities.*

**Networks**

As a networking professional, you are expected to understand networking components and be able to troubleshoot, install, maintain, configure, and manage basic networking infrastructures. The demand for networking professionals is on the rise; and professionals with networking and communications skills typically earn more than those without networking skills.

**LabSim**

The LabSim learning resource (TestOut Network Pro) for this course contains the following:

- Videos: 79 (14:19)
- Demonstrations: 31 (4:54)
- Simulations: 56
- Fact Sheets: 78
- Exams: 56

The LabSim modules are constructed in a manner to build off previous lessons. Complete each section in the order presented. Each module contains

- a video,
- lecture/fact sheets, and
- lab simulations.

It is essential to read the materials prior to attempting the simulations to ensure you have a full and applicable understanding of the concepts and competencies required for successful completion of the practice exams.
Note: It is strongly recommended that you continue to attempt lab simulations until you can easily complete the tasks scoring 100% and pass practice exams with no less than 90% to maximize your chances of successfully passing the actual examination associated with this course.

This topic addresses the following competencies:

- **Competency 419.3.1: Network Topologies**
  The graduate distinguishes and explains network topologies, including protocols, ports, addressing schemes, routing, and wireless communication standards.

- **Competency 419.3.2: Media and Topologies**
  The graduate differentiates and explains physical and logical topologies, including wiring standards.

- **Competency 419.3.3: Network Devices**
  The graduate differentiates and installs/configures network devices.

- **Competency 419.3.4: Network Connectivity and Performance Methodologies**
  The graduate identifies appropriate methodologies for troubleshooting network connectivity and performance issues in a given network environment.

- **Competency 419.3.5: Network Troubleshooting Utilities and Analysis**
  The graduate uses hardware and software utilities to track and maintain network performance in optimized state.

- **Competency 419.3.6: Network Security Devices**
  The graduate differentiates and explains network security devices and methods for troubleshooting common security threats.

**LabSim Modules**

Because you are to complete the activities for this course within the LabSim learning resource, the following list of modules has been provided to

- orient you as you begin the course and
- provide an overview of the content you will be studying.

Access the following LabSim resource:

- **Network Pro**

Complete all of the modules within the following sections:

- 0.0 Introduction
- 1.0 Networking Basics
- 2.0 Cables and Connectors
- 3.0 Networking Devices
- 4.0 Ethernet
- 5.0 Network Implementation
- 6.0 Wireless Networking
- 7.0 Wide Area Networks (WANs)
- 8.0 Network Security
- 9.0 Network Management
- 10.0 Troubleshooting
- Practice Exams

Please remember to proceed through the activities in the specified order.

**E-Text Reading**

Each of the LabSim sections corresponds to a part of the *CompTIA Network+ Review Guide, 2nd Edition (Exam: N10-005)*. See the following document for details about how LabSim and the text work together:

- [LabSim Network Pro Courseware Mapping](#)

**Using uCertify**

The uCertify PrepKit is a hefty tool for exam preparation, but is not very useful without the grounding provided by the other learning resources in this course; the uCertify learning resource is meant to complement the other learning resources for this course.

This topic addresses the following competencies:

- **Competency 419.3.1: Network Topologies**
  The graduate distinguishes and explains network topologies, including protocols, ports, addressing schemes, routing, and wireless communication standards.

- **Competency 419.3.2: Media and Topologies**
  The graduate differentiates and explains physical and logical topologies, including wiring standards.

- **Competency 419.3.3: Network Devices**
  The graduate differentiates and installs/configures network devices.

- **Competency 419.3.4: Network Connectivity and Performance Methodologies**
  The graduate identifies appropriate methodologies for troubleshooting network connectivity and performance issues in a given network environment.

- **Competency 419.3.5: Network Troubleshooting Utilities and Analysis**
  The graduate uses hardware and software utilities to track and maintain network performance in optimized state.

- **Competency 419.3.6: Network Security Devices**
  The graduate differentiates and explains network security devices and methods for troubleshooting common security threats.

**uCertify**

Complete the following uCertify review course:
Final Steps

Congratulations on completing the activities in this course! This course has prepared you to complete the assessment associated with this course. If you have not already been directed to complete the assessment, schedule and complete your assessment now.

First Attempt Checklist

One of the many things that makes WGU unique is its competency based education model. If you know the material, all you have to do is prove it by passing the exam. If you can do this, you can accelerate the receipt of your degree.

To make sure you have the best chance possible to pass the exam on your first attempt, the following should be completed before you refer to take it:

1. Go through the course in its entirety. Mark as complete as you progress.
2. Pass the module quizzes at the end of each section and the Domain sections in LabSim.
3. Pass the Practice Certification Exam in Labsim scoring a minimum of 720.
4. Read and review the *CompTIA Network+ Deluxe Study Guide* and takes notes as appropriate.
5. Complete the uCertify resource and pass the preassessment.
6. Student has spent at least 7 weeks of studying.

After completing the above sections and passing, please speak to your program mentor to have your voucher emailed to you.

If the first attempt is failed, you will be required to get in contact with the course instructor to see what went wrong and how you can prepare to make sure your second attempt is a success. Once the course instructor feels you are ready to refer for the second attempt of the exam, he or she will approve your second exam referral.

For additional information, see "Networks+ First Attempt Details".

LabSim Practice Exam

Take the LabSim "Practice Exam" again. This will provide you with valuable feedback about

- your readiness to take the Certification Exam and
- more specifically, questions you miss and what sections you can refer back to in order to complete additional study.

It is recommended that you take and pass the Practice Exam at least twice with a score of 90% or higher before considering yourself ready for the assessment.
Outside Vendor Assessment
Complete the following outside vendor assessment:

- CompTIA Networks+ Certification Exam (educational code JK0-019)

For directions on how to receive access to outside vendor assessments, see the "Accessing Objective and Outside Vendor Assessments" page.

Your voucher will show JK0-019 which is how CompTIA codes vouchers from educational institutions. The exam is the same as the N10-005.

Submitting Outside Vendor Assessment Scores

After completing an outside vendor assessment, follow the directions for submitting a score report on the "Following Outside Vendor Assessment" page.

The WGU Library

The WGU Library

The WGU Library is available online to WGU students 24 hours a day.

For more information about using the WGU Library, view the following videos on The WGU Channel:

Introducing the WGU library

*Note: To download this video, right-click the following link and choose “Save as...”: [download video](#).

Searching the WGU library

*Note: To download this video, right-click the following link and choose “Save as...”: [download video](#).

Center for Writing Excellence: The WGU Writing Center

If you need help with any part of the writing or revision process, contact the Center for Writing Excellence (CWE). Whatever your needs—writing anxiety, grammar, general college writing concerns, or even ESL language-related writing issues—the CWE is available to help you. The CWE offers personalized individual sessions and weekly group webinars. For an appointment, please e-mail writingcenter@wgu.edu.

Feedback

WGU values your input! If you have comments, concerns, or suggestions for improvement of
this course, please submit your feedback using the following form:

- [Course Feedback](#)