This course supports the assessment for IT Foundations. The course covers 8 competencies and represents 4 competency units.

Introduction

Overview
Welcome! This course outlines the sequence of steps required to develop the necessary competence in

- the fundamentals of computer technology,
- installation and configuration of PCs,
- laptops and related hardware,
- basic networking, and
- operational procedures including professionalism in an IT environment.

Watch the following video for an introduction to this course:

Note: To download this video, right-click the following link and choose "Save as...": download video.

The primary resource for this course will be LabSim courseware. Watch the following video for an overview of LabSim:

Note: To download this video, right-click the following link and choose "Save as...": download video.

Competencies
This course provides guidance to help you demonstrate the following 8 competencies:

- **Competency 4001.1.1: Desktop System Hardware**
  The graduate demonstrates an understanding of personal computer components, and their function, in a desktop system.

- **Competency 4001.1.2: Hardware Storage and Information**
  The graduate demonstrates a basic working knowledge of computer data storage and information retrieval.

- **Competency 4001.1.3: Printers**
  The graduate recommends appropriate strategies for classifying, installing, configuring, optimizing, upgrading, and troubleshooting printers.

- **Competency 4001.1.4: Laptops and Portable Devices**
  The graduate recommends appropriate strategies for classifying, installing, configuring, optimizing, upgrading, and troubleshooting laptops and portable devices.
• **Competency 4001.1.5: Networks**
The graduate recommends appropriate strategies for classifying, installing, configuring, optimizing, and upgrading basic network types.

• **Competency 4001.1.6: Safety and Environmental Issues**
The graduate recommends appropriate tools and strategies for identifying, preventing, and reporting safety hazards and environmental/human accidents in a technological environment.

• **Competency 4001.1.7: Communication**
The graduate communicates effectively with colleagues and clients in a technological environment.

• **Competency 4001.1.8: Professionalism**
The graduate evaluates the implication of job-related professional behavior in a given scenario.

**Course Mentor Assistance**
As you prepare to successfully demonstrate competency in this subject, remember that course mentors 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 mentors are excited to hear from you and eager to work with you.

Successful students report that working with a course mentor is the key to their success. Course mentors 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 mentors act as a support system to guide you through the revision process. You should expect to work with course mentors for the duration of your coursework, so you are welcome to contact them as soon as you begin. Course mentors 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.

**Automatically Enrolled Learning Resources**
You will be automatically enrolled at the activity level for the following learning resources. Simply click on the links provided in the activities to access the learning materials.
TestOut LabSim
You will be linked to the following resource within the activities for this course:

- A+ 220-801

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

- be running Microsoft Windows XP/Vista/7/8/Macintosh OS X or higher with Intel processor
  and
- meet the minimum hardware and software system requirements provided on the TestOut
  website. To verify your computer meets TestOut's requirements, go to the Product FAQs page
  and click on "What are the system requirements for the software?"

Supplemental SkillSoft and Books 24x7
You may 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-text may be used as a supplemental resource in this course:

- Doctor, Quentin, Dulaney, Emmett, and Skandier, Toby. (2012). CompTIA A+ Complete

Note: This textbook is a concise, focused study aid for the 2012 edition of CompTIA A+
Certification exams. This guide covers all exam objectives, including hardware, networking, laptops
and printers, operating procedures, operating systems, security, mobile devices, and
troubleshooting.

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: IT Foundations

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.

IT Foundations
This section will guide you to complete the course activities. A preassessment is provided so that
you know where to focus your preparation for the CompTIA A+ 220-801 assessment. The majority
of your coursework will be spent in the LabSim modules. A LabSim practice exam is also provided
to help you gauge your readiness for completing the CompTIA A+ 220-801 assessment.
LabSim

LabSim provides simulated lab exercises that will require you to complete the same tasks as you would on a live computer. You will be required to work from the same console every time as you would with a live computer; you will become familiar with the requirements and the look and feel of the console, thus giving you valuable experience.

The LabSim A+ 220-801 Course is organized into thirty-seven chapter assignments, which include interactive videos, readings, and interactive labs.

This resource is constructed in a manner to build upon the material covered the previous lessons, so it is not recommended that you skip around or complete the sections out of order. Each section has

- videos and/or demonstrations,
- fact sheets,
- lab exercises, and
- quizzes.

You are strongly encouraged you to utilize all the resources included.

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 4001.1.1: Desktop System Hardware**
  The graduate demonstrates an understanding of personal computer components, and their function, in a desktop system.
- **Competency 4001.1.2: Hardware Storage and Information**
  The graduate demonstrates a basic working knowledge of computer data storage and information retrieval.
- **Competency 4001.1.3: Printers**
  The graduate recommends appropriate strategies for classifying, installing, configuring, optimizing, upgrading, and troubleshooting printers.
- **Competency 4001.1.4: Laptops and Portable Devices**
  The graduate recommends appropriate strategies for classifying, installing, configuring, optimizing, upgrading, and troubleshooting laptops and portable devices.
- **Competency 4001.1.5: Networks**
  The graduate recommends appropriate strategies for classifying, installing, configuring, optimizing, and upgrading basic network types.
• Competency 4001.1.6: Safety and Environmental Issues
  The graduate recommends appropriate tools and strategies for identifying, preventing, and reporting safety hazards and environmental/human accidents in a technological environment.

• Competency 4001.1.7: Communication
  The graduate communicates effectively with colleagues and clients in a technological environment.

• Competency 4001.1.8: Professionalism
  The graduate evaluates the implication of job-related professional behavior in a given scenario.

Course Preparation

Make sure you have the right computer equipment setup and software to get started.

Make sure you are able to access the online message board supporting this course and that you know where to go to get help should you need additional support for your learning.

Getting Help With Your Learning

If you have difficulty answering activity questions or completing any of the activity tasks, it is recommended that you try one or more of the following resources:

• Look in the message boards to see if you can find similar questions and answers posted by others.
• Reach out to your peers for assistance.
• Contact your course mentor directly for help.

The Preassessment

The preassessment assesses your knowledge of the content covered in this course. Your performance on this assessment will help guide you to the areas on which you need to focus the most attention.

Complete the LabSim "Practice Exam" within the LabSim learning resource before beginning the course.

If needed, use the LabSim Preassessment Instructions.

When you take this preassessment, you should avoid

• studying for it in advance,
• looking up answers while taking it, and
• guessing at the correct answer (instead of simply "knowing" it).

Review the results of your preassessment with your mentor.
LabSim Coursework

Access and complete all chapters, exercises, and quizzes. within the following LabSim resource:

- **A+ Essentials 220-801**

Complete all of the modules within the following sections:

- 1.0 Computing Overview
- 2.0 PC Technician
- 3.0 System Components
- 4.0 Peripheral Devices
- 5.0 Storage
- 6.0 Networking
- 7.0 Printing
- 8.0 Mobile Devices
- 10.0 System Implementation
- 12.0 Security

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

LabSim Practice Exams

Take the domain-specific and comprehensive practice exams at the end of the LabSim course.

- domain 1: PC Hardware
- domain 2: Networking
- domain 3: Laptops
- domain 4: Printers
- domain 5: Operational Procedures
- 220-801 Certification Practice Exam

This will provide you with valuable feedback about

- your readiness to take the exam and
- the questions you miss and what section you can refer back to in order to complete additional study.
It is recommended that you take and pass the 220-801 Certification Practice Exam at least once with a score of 90% or higher before considering yourself ready for the assessment.

**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 assessments, schedule and complete your assessment now.

**First Attempt Checklist**

One of the many things that make 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 steps should be completed successfully before you take it:

1. Read the *CompTIA A+ Complete Study Guide: Exams 220-801 and 220-802 2nd ed*. Take the end of the chapter review questions scoring 85% or higher.
2. Complete all assigned modules in LabSIM.
3. Score an 80% or higher on all Domain Practice exams in LabSim A+ Essentials 220-801.
4. Score 85% or higher on the Certification Practice Exam in LabSim A+ Essentials 220-801.

Once the steps above have been completed and you feel confident with all of the concepts presented, you are most likely ready to refer for the first attempt of the exam. If you fail your first attempt, you will be required to get in contact with the course mentor to determine what went wrong and how you can prepare to ensure that your second attempt is successful. Once the Course Mentor feels you are ready to refer for the second attempt of the exam, he or she will approve your second exam referral.

**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]

**Accessibility Policy**

Western Governors University recognizes and fulfills its obligations under the Americans with Disabilities Act of 1990 (ADA), the Rehabilitation Act of 1973 and similar state laws. Western Governors University is committed to provide reasonable accommodation(s) to qualified disabled learners in University programs and activities as is required by applicable law(s). The Office of Student Accessibility Services serves as the principal point of contact for students seeking accommodations and can be contacted at ADASupport@wgu.edu. Further information on WGU's Accessibility policy and process can be viewed in the student handbook at the following link:

- [Policies and Procedures for Students with Disabilities]