# **Introduction to Hardware Installation**



IT 131 /CRN # 53338 Spring 2022 Instructor: James Hart

hart56@unm.edu / ph. 505.239.3435 Office Hrs: MW 10:00 PM – 3:00 PM TTh 1:00 PM – 2:00 PM

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## COURSE DESCRIPTION

Introduction to Hardware Installation. (3) The purpose of this course is to prepare students to take and pass the CompTIA national certification exam. Students will learn function, structure, operations, file management, and memory management. Students will also practice proper safety procedures, scheduled preventative maintenance, and installation of computer components. In addition, students will configure, diagnose, and troubleshoot stand-alone computers. Finally, students will learn and apply industry accepted customer service skills. Prerequisite: IT 125.

#### **Course Goals:**

Prepare students to have the knowledge, skills, and abilities to pass the CompTIA 1001 certification exam

#### **EMAIL**

Be sure to check your contact information in Banner and keep it updated. UNM email as our official form of course communication. When communicating with your instructor always include class name in the subject header.

# **Student Learning Outcomes/Course Objectives**

- Install, configure and troubleshoot computers and mobile devices
- Identify common security threats (ex. Phishing and Spoofing)
- Develop critical thinking and problem solving skills using real equipment and the Cisco Packet Tracer
- Prepare for the CompTIA A+ exam by::
  - Identifying, using, and connecting hardware components and devices
  - Explaining types of networks and connections including TCP/IP, WiFi and SOHO
  - Configuring laptops and other mobile devices

- Installing and supporting Windows OS including command line and client support.
- Troubleshooting device and network issues
- Comparing and contrasting cloud computing concepts and set up client virtualization
- Troubleshoot PC and mobile device issues including application security support
- Identifying and protecting against security vulnerabilities for devices and their network connections
- Following best practices for safety and environmental impacts
- Following best practices for communication and professionalism

### **Specific Course Requirements**

Computer and Internet connection

## **TECHNICAL SKILLS**

In order to participate and succeed in this class, you will need to be able to perform the following basic technical tasks:

- Use UNM Learn (help documentation located in "How to Use Learn" link on left course menu, and also at <u>Online Student Documentation</u>). Also, UNM-Valencia provides a Blackboard Learn Jumpstart self-learning module to give you practice with the most commonly used tools in UNM Learn. Ask your instructor if you do not see the UNM-Valencia Blackboard Learn Jumstart in your list of classes in UNM Learn.
- Use email including attaching files, opening files, downloading attachments
- Use the in-course web conferencing tool (Collaborate Web Conferencing software in UNM Learn) or use Zoom or other web conferencing tool
- Download and install an application or plug in required for participating in web conferencing sessions

## TECHNICAL REQUIREMENTS

#### Computer

- A high-speed Internet connection is highly recommended.
- Supported browsers include: <u>Detailed Supported Browsers and Operating</u> Systems
- Any computer capable of running a recently updated web browser should be sufficient to access your online course. However, bear in mind that processor speed, amount of RAM and Internet connection speed can *greatly* affect performance.
- For the best experience when using the Kaltura Media Tools inside UNM Learn, be sure to use a <u>supported browser</u> on a desktop.
- Microsoft Office products are available free for all UNM students (more information on the UNM IT Software Distribution and Downloads page)

• Please update your contact information in Loboweb: <a href="MyUNM Login">MyUNM Login</a>. When you log into MyUNM, Enter LoboWeb. Click on the Personal Information link to make sure your contact information is up to date.

## **Web Conferencing**

Web conferencing will be used in this course during the following times and dates: For the online sessions, you will need:

- A USB headset with microphone. Headsets are widely available at stores that sell electronics, at the UNM Bookstore or online.
- A high-speed internet connection is highly recommended for these sessions. A
  wireless Internet connection may be used if successfully tested for audio quality
  prior to web conferencing.
- You should also dress as you would when attending an in-person class, even if you do not turn on your video camera.

# **Technical Support**

- For UNM Learn Technical Support: (505) 277-0857 (24/7) or use the "Create a Tech Support Ticket" link in your course.
- For UNM-Valencia IT Support: (505)925-8911
- For UNM Web Conference Technical Help: (505) 277-0857

# **Required Textbooks and References:**

Your account on https://netacad.com

#### **Supplementary Materials:**

• There is a wide variety of Microprocessor skill sets. If you would like to have more detail on any of our topics, please contact me. I'll be happy to help

#### **Required Supplementary Materials:**

USB Flash Drive (at least 16G)

#### COURSEWORK AND PARTICIPATION

#### **Instructor Response Time**

I routinely check the course for postings or emails, Monday through Friday between 7:00 and 10:00 AM. You can anticipate a 24 to 48 hour response from me. If you MUST contact me, please text, but don't forget I sleep too.

# **Procedures for Completing Coursework**

 Tests are posted for completion on the Cisco site and UNM Learn, they need to be taken online. If you have difficulty competing this work, contact your instructor. For most assignments you will have 1 week to complete. If you cannot complete, notify me for options

#### **Course Schedule**

There will be one to two recorded lectures per week. Each lecture will have a phrase (ex. "dogs bark"). Who knows where it will appear. To get credit for the lecture you must email me the phrase. The phrase could be anywhere in the lecture.

## **Expectations for Participation**

- time required (9-12 hrs per week)
- students are expected to learn how to navigate in Learn and Cisco's Netacad
- students are expected to communicate with one another in team projects
- students are expected to keep abreast of course announcements
- students are expected to use the Learn course email as opposed to a personal email address
- students are expected to keep instructor informed of class related problems, or problems that may prevent the student from full participation
- students are expected to address technical problems immediately
- students are expected to observe course netiquette at all times

#### Netiquette

Netiquette document

# NOTES TO STUDENTS ABOUT PARTICIPATION IN A COURSE USING UNM LEARN:

#### Tracking Course Activity

UNM Learn and Cisco Netacad automatically records all students' activities including: your first and last access to the course, the pages you have accessed, the number of discussion messages you have read and sent, web conferencing, discussion text, and posted discussion topics. This data can be accessed by the instructor to evaluate class participation and to identify students having difficulty

# **Grading Scale**

Lecture Attendance	: 10%		A 90 +
Exams	30%		B 80 - 89
Quizzes	10%		C 70 - 79
Practice Final	20%		D 60 - 69
Final	30%		F < 60
Total	100%		
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#### **UNM POLICIES**

## **Equal Opportunity and Non-Discrimination**

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the <u>Department of Education</u> (see pg. 15). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the <u>Office of Equal Opportunity</u>.

Read more about campus policy regarding sexual misconduct.

# Copyright Issues

All materials in this course fall under copyright laws and should not be downloaded, distributed, or used by students for any purpose outside this course.

The UNM Copyright Guide has additional helpful information on this topic.

# **Accessibility and Accommodations**

The American with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodations of their disabilities. If you have a disability requiring accommodation, please contact:

- <u>UNM-Valencia Student Services</u> if you are a Valencia campus student. The phone number is 505-925-8560
- <u>UNM Accessibility Resource Center</u> in 2021 Mesa Vista Hall if you are a main campus student. The phone number is 505-277-3506.

Information about your disability is confidential and your instructor cannot refer you for accommodations. Be aware that you will need to provide documentation. If you need assistance in obtaining documentation, the offices above can assist you.

#### **Accessibility Statements**

Blackboard's Accessibility statement
Microsoft's Accessibility statement

Include links to accessibility statements for all other technologies included in the course.

## **Academic Integrity**

You should be familiar with UNM's Policy on Academic Dishonesty and the Student Code of Conduct which outline academic misconduct defined as plagiarism, cheating, fabrication, or facilitating any such act.

## **Drop Policy**

UNM Policies: This course falls under all UNM policies for last day to drop courses, etc. Please see or the UNM Course Catalog for information on UNM services and policies. Please see the UNM academic calendar for course dates, the last day to drop courses without penalty, and for financial disenrollment dates.

#### **UNM RESOURCES**

- UNM Valencia Campus Tutoring Services
- UNM Main Campus CAPS Tutoring Services
- UNM-Valencia Library
- UNM Libraries
- "Life" Resources available to UNM-Valencia Students
- Student Health & Counseling (SHAC) Online Services

#### FOR MILITARY-CONNECTED STUDENTS

There are resources on campus designed to help you succeed. You can approach any faculty or staff for help with any issues you may encounter. Many faculty and staff have completed the GREEN ZONE training to learn about the unique challenges facing military-connected students. If you feel that you need help beyond what faculty and/or staff can give you, please reach out to the Veterans Resource Center on main campus at 505-277-3181, or by email at <a href="mailto:vrc@unm.edu">vrc@unm.edu</a>. The Veterans Coordinator at UNM-Valencia is in the Student Services Office, at 505-925-8560.

## SEMESTER DEADLINES

•	28-Jan	Enrollment Cancellation for non-payment
•	28-Jan	Last Day to Add Courses or Change Sections
•	3-Sep	Last day to CHANGE grade mode on LoboWEB.
•	4-Feb	Last day to DROP without "W" grade and 100% tuition refund
•	11-Feb	Last day to Grading Options
•	13-Mar	Spring Break
•	15- April	Last day to DROP without Dean's Permission
•	6-May	Last day to DROP with Student Services Permission.
•	9-May	<u>Finals Week</u>
•	13-May	Last day to report removal of Incomplete.

COURSE OUTLINE references <a href="https://contenthub.netacad.com/itn">https://contenthub.netacad.com/itn</a> on the Academy site (Please note that this course outline is subject to change. If changes occur, you will be notified)

Week 1 / Jan 17

#### **Modules / Course Introduction**

- In Modules "click" First Time in This Course
- In Modules "click" **Student Resources**
- Take Pretest ITE 6.0 Pre-Test
- Modules / Chapter 1 Introduction to the Personal Computer System
- Read Chapter 1

Week 2 / Jan 24

## Modules / Chapter 1

- CompTIA Practice Quiz
- Take Chapter 1 Exam
- Terms and Concepts Practice
- Modules / Chapter 2 PC Assembly
- Read Chapter 2

#### Week 3 / Jan 31

## Modules Chapter 2

- CompTIA Practice Quiz
- Take Chapter 2 Exam
- Terms and Concepts Practice
- Modules / Chapter 3 Advanced Computer Hardware
- Read Chapter 3

#### Week 4 / Feb 7

## Modules / Chapter 3

- CompTIA Practice Quiz
- Take Chapter 3 Exam
- Terms and Concepts Practice
- Modules / Chapter 4 Preventative Maintenance and Troubleshooting
- Read Chapter 4

#### Week 5 / Feb 14

# Modules / Chapter 4 (cont...)

- CompTIA Practice Quiz
- Take Chapter 4 Exam
- Terms and Concepts Practice

#### Week 6 / Feb 21

## Modules / Chapter 5 - Networking Concepts

- Read Chapter 5
- CompTIA Practice Quiz
- Take Chapter 5 Exam
- Terms and Concepts Practice

# Week 7 / Feb 28

# Modules / Chapter 6 – Applied Networking

- Read Chapter 6
- Terms and Concepts Practice
- CompTIA Practice Quiz
- Take Chapter 6 Exam

#### Week 8 / March 7

# Modules / Chapter 7 – Laptops and Other Mobile Devices

- Read Chapter 7
- CompTIA Practice Quiz
- Take Chapter 7 Exam
- Terms and Concepts Practice
- Review Binary, Hex, Decimal

#### Week 9 / March 14

#### Take MIDTERM

#### Week 10 / March 21

## Modules / Chapter 8 – Printers

- Read Chapter 8
- · Review Binary, Hex, Decimal
- CompTIA Practice Quiz
- Take Chapter 8 Exam

#### Week 11 / March 28

# Modules / Chapter 9 - Virtualization

- Read Chapter 9
- CompTIA Practice Quiz
- Take Chapter 9 Exam
- Review Binary, Hex, Decimal

#### Week 12 / April 4

## Review for CompTIA Core 1

- CompTIA Practice Quizzes
- Checkpoint Exam (Chapters 1 − 4)

## Week 13 / April 11

## Review for CompTIA Core 1

- CompTIA Practice Quizzes
- Checkpoint Exam (Chapters 5 − 6)

# Week 14 / April 18

# Review for CompTIA Core 1

- Checkpoint Exam (Chapters 5 6)
- CompTIA Practice Quizzes

Week 15 / April 25

## Review

- CompTIA Practice Quizzes
- Checkpoint Exam (Chapters 7–8)
- Practice Final

Week 16 / May 2

ITE 6.0 A+ Cert Practice Exam 1 & 2

Week 17 / May 9

Finals week.

**ONLINE FINAL**