

IT 131-501 Fall 2015

Guide to Hardware: Managing, Maintaining, and Troubleshooting

Instructor: John E. Abrams

Office: Office CSS Offices

Office Hours: Immediately after class for forty-five minutes

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Classroom: B127

Course Title Number and Section: Intro Hardware Installation IT 131-501

Class Times: Monday and Wednesday 9:00 to 10:15 – 16 weeks

Semester Date and Duration: Start date 08/17/2015 - End date 12/21/2015

CRN: 50275

Prerequisites: IT 125

Course Description: The purpose of this course is to prepare students to take and pass the CompTIA national A+ Technician certification test. Students will learn component and operating system functions, structures, and operations. This includes file management, and memory management and various operating system requirements and installation techniques. Students will also practice proper safety procedures, perform 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.

Textbook: Subscription to LabSim PCPro <http://testout.com>

Course Objectives

Students will be able to identify, explain, define and demonstrate the step-by-step approach for the fundamentals of supporting and troubleshooting computer hardware. Beginning steps toward CompTIA's latest A+ 220-701 and 220-702 Exam objectives.

Specific topic coverage includes:

- Identify Hardware
- Explain Operating Systems
- Demonstrate working with People in a Technical World
- Identify Form Factors, Power Supplies, and Working Inside a Computer
- Explain the purpose of Motherboards
- Supporting Processors
- Upgrading Memory
- Explaining Hard Drives

Web Site

Supplementary information for the course is available on the Learn Blackboard Course (URL <http://learn.unm.edu>). The Web site contains class notes, PowerPoint slides, class announcements, the course syllabus, test dates, and other information for the course.

Week	Course day date	Topics/Activity	Items Readings and Exams Due
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1 Mon	1 8/17	Welcome and Introduction Review Syllabus/ E-mail accounts LabSim Familiarization Section 1.0 Computing Overview	Buy storage device and TestOut Key Code/ Enroll in TestOut/LabSim Course: TestOut PC Pro 220-801/220-802
Wed	2 8/19	Section 1.0 Computing Overview Working with LabSim Computer Lab Familiarization LabSim Familiarization	Complete 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 2.5, LabSim Activities – Review the Information in Fact Sheets, Perform All Labs.
2 Mon	3 8/24	Section 2.0 PC Technician Overview and Section 3.0 System Components	Complete LabSim. 3.1, 3.2, 3.3, 3.4 - Perform all Labs and Read/Understand Fact Sheets
	4 8/26	LECTURE, SECTION 3 Section 3.0 System Components Overview	Complete LabSim 3.5, 3.6, 3.7 - Perform all Labs and Read/Understand Fact Sheets
3 Mon	5 8/31	Section 3.0 System Components	Complete LabSim 3.8, 3.9, 3.10, 4.1- LabSim Activities - Perform all Labs and Read/Understand Fact Sheets
	6 9/2	Section 4.0 Peripheral Devices Overview	Complete LabSim 4.2, 4.3, 4.4, 4.5, 4.6 - Perform all Labs and Read/Understand Fact Sheets
4 Mon	7 9/7	Section 5.0 Section Storage Overview	Complete LabSim, 5.1 – 5.5 LabSim Activities - Perform all Labs and Read/Understand Fact Sheets
	8 9/9	Section 5.0 Storage	Complete LabSim 5.6 – 5.10 LabSim Activities- Perform all Labs and Read/Understand Fact Sheets
5 Mon	9 9/14	CHAPTERS 1-5 EXAM (Online Take-home Opens Today) Hardware Take Apart Demo	Practice Hardware Take Apart
	10 9/16	Section 6.0 Networking Overview (cont'd) Complete Missing Assignments to date Practice Hardware Take Apart	Complete LabSim 6.1 – 6.4 LabSim Activities Complete Missing Assignments to date
6 Mon	11 9/21	Section 6.0 Networking Overview (cont'd) Practice Hardware Take Apart Hardware Skills Exam (Group 1)	Complete LabSim 6.5 – 6.10 LabSim Activities Practice Hardware Take Apart Chapters 1-5 Exam Due
	12 9/23	Section 6.0 Networking Overview (cont'd) Hardware Skills Exam (Group 2)	Complete LabSim 6.11 – 6.14 LabSim Activities Practice Hardware Take Apart
7 Mon	13 9/28	LECTURE, SECTION 7.0 Section 7.0 Printing Overview	Complete LabSim 7-1, 7.2, 7.3, 7.4, 7.5 LabSim Activities
	14 9/30	Section 8.0 Mobile Devices Overview	Complete LabSim 8.1 – 8.4 LabSim Activities

8 Mon	15 10/5	Section 10.0 System Implementation	Complete LabSim 10.1 – 10.5 LabSim Activities
	16 10/7	Section 9.0 Windows System Management Overview	Complete LabSim 9.1 – 9.5 LabSim Activities
9 Mon	17 10/12	Columbus Day	
	18 10/14	Section 9.0 Windows System Management (cont'd)	Complete LabSim 9.6 – 9.9 LabSim Activities
10 Mon	19 10/19	LECTURE SECTION 11 Section 11.0 File Management Overview	Complete LabSim 11.1 – 11.5 LabSim Activities
	20 10/21	CHAPTERS 6-11 EXAM (Online Take-Home Opens Today) Section 12.0 Security Overview	Complete Missing Assignments to date Complete LabSim 12.1 – 12.5 LabSim Activities
11 Mon	21 10/26	Section 12.0 (cont'd)	Complete LabSim 12.6 – 12.10 LabSim Activities Chapter 6-11 Exam Due
	22 10/28	Section 13.0 Troubleshooting	1. Complete LabSim 13.1 – 13.11 LabSim Activities Complete Capstone Exam 14.1 and 14.2 -Building a Computer and Troubleshooting a Computer
12 Mon	23 11/2	1. Student Presentations for Final Review 2. Capstone, Module 14.0	1. Student Presentation for Final Review 2. Capstone Exams, Module 14.1 and 14.2 Building a Computer and Troubleshooting a Computer
	24 11/4	PC Pro Certification Practice Exam (Labs)	PC Pro Certification Practice Exam (Labs)
13 Mon	25 11/9		
	26 11/11	Make-Up Day	Complete all including missing assignments
14 Mon	27 11/16		
	28 11/18	Student Presentations	
15 Mon	29 11/23	Student Presentations	
	30 11/25	Final Review	
16 Mon	31 11/30	Final Review	
	32 12/2	PC Pro Exam FINAL	In Class Final Exam
17 Monday	33 12/7		

E-Mail All students must have a UNM e-mail account. If you have any questions about the course or need assistance, please contact me in person or by telephone during office hours; or by

e-mail at any time. All quizzes and tests are going to be taken using LabSim. Grades will be posted to Blackboard weekly.

Grading and Evaluation Criteria

70% of the grade is based on Assessments.

20% of the grade is based on completion of the lab exercises that will be assigned as the second part of each class session

10% of the grade will be based on a class presentation based on common scenarios of PC hardware and software issues that users encounter daily in a typical organization.

These percentages will be used to assign final grades:

A+ = 100–98	A = 97–94	A- = 93–90	B+ = 89–87	B = 86–84
B- = 83–80	C+ = 79–77	C = 76–74	C- = 73–70	D+ = 69–67
D = 66–64	D- = 63–60	F = 59–0		

Computer Lab Responsibility:

Please be advised that use of computer labs on UNM properties is governed by “Policy 2500: Acceptable Computer Use” which can be found at <http://policy.unm.edu/university-policies/2000/2500.html>. Food and drink are also prohibited in any computer lab on campus. Anyone violating these policies is subject to possible suspension and loss of computer lab privileges.

UNM Email/Black Board Learn Access

UNM-Valencia students must have a UNM Net ID which can be created by going to: <http://it.unm.edu/accounts/>. The UNM Net ID will give you access to the computer labs on campus, blackboard learn and UNM Email.