

CIST 1122 - Hardware Installation and Maintenance (version 201003L)

Course Title Course Development Learning Support

Hardware Installation and Maintenance Standard No

Course Description

This course serves to provide students with the knowledge of the fundamentals of computer technology, networking, and security along with the skills required to identify hardware, peripheral, networking, and security components with an introduction to the fundamentals of installing and maintaining computers. Students will develop the skills to identify the basic functionality of the operating system, perform basic troubleshooting techniques, utilize proper safety procedures, and effectively interact with customers and peers. This course is designed to help prepare students for the CompTIA A+ certification examination.

Pre-requisites

Pre-requisites: All Required

Program Admission

Co-requisites

Co-requisites: None

Course Length

	Minutes	Contact Hour	Semester Credit	WLU
Lecture:	1500	30		
Lab 2:	1500	30		
Lab 3:	2250	45		
Total:	5250	105	4	
Semester Credit Hours:			4	161.25
Breakout Detail of Lab 3				
Practicum/Internship	0	0		
Clinical	0	0		

Competencies & Outcomes

Order	Description	Lecture	Lab 2	Lab 3	Total Min	Credit Hrs	Pract Intern	Clinical
1	Hardware	400	400	600	1400	1	0	0
Order Description						Learning Domain	Level of Learning	
1	Identify hardware components and features including storage devices, motherboard components, power supplies, processors, cooling devices, memory, display devices, peripherals, adapter cards, laptop components and printer components					Cognitive	Knowledge	
2	Implement , install, configure, optimize and upgrade hardware components					Psychomotor	Mechanism	
2	Troubleshooting, Repair and Maintenance	300	300	450	1050	1	0	0
Order Description						Learning Domain	Level of Learning	

	1	Explain and interpret common hardware and operating system troubleshooting scenarios and solutions					Cognitive	Knowledge
	2	Perform preventive maintenance of hardware components and operating systems					Psychomotor	Guided Response
3	Operating Systems and Software	300	300	450	1050	1	0	0
	Order	Description					Learning Domain	Level of Learning
	1	Compare and contrast different Windows operating systems and their features					Cognitive	Analysis
	2	Implement install, configure, optimize and upgrade operating systems					Psychomotor	Mechanism
	3	Demonstrate proper use of user interfaces					Cognitive	Application
	4	Explain the basics of boot sequences, methods and startup utilities					Cognitive	Knowledge
4	Networking	190	215	322	727	1	0	0
	Order	Description					Learning Domain	Level of Learning
	1	Identify the fundamental principles and components of networks and network related hardware					Cognitive	Knowledge
	2	Compare and contrast the different network types, including both wired and wireless technologies					Cognitive	Analysis
	3	Implement , install, configure, optimize and upgrade networks					Psychomotor	Mechanism
5	Security	160	135	203	498	0	0	0
	Order	Description					Learning Domain	Level of Learning
	1	Identify the fundamental principles of security concepts, technologies and features					Cognitive	Knowledge
	2	Implement , install, configure, upgrade and optimize security components					Psychomotor	Mechanism
	3	Identify tools, diagnostic procedures and troubleshooting techniques for maintaining a secure environment					Cognitive	Knowledge
6	Operational Procedures	150	150	225	525	0	0	0
	Order	Description					Learning Domain	Level of Learning
	1	Describe the aspects and importance of safety and environmental procedures					Cognitive	Comprehension
	2	Demonstrate appropriate use of communication skills and professionalism in the workplace					Affective	Valuing
Competency Totals:		Lecture 1500	Lab 2 1500	Lab 3 2250	Total Min 5250	Cred Hrs 4	Pract Intern 0	Clinical 0