



ExplorNet's Computer Engineering Technology 1

2016-17 Framework Revised Feb. 2016

This framework is designed to prepare students for the following exams: CompTIA's IT Fundamentals (FC0-U51), portions of CompTIA's A+ Essentials (220-901 and 220-902), and Microsoft Technology Associate Networking Fundamentals (98-349).

(Recommended hours of instruction: 135-180)

CompTIA A+ 220-901	CompTIA A+ 220-902	CompTIA IT Fund FCO-U51	MTA Ntwk 98-349	ExplorNet CET Objective	Unit Titles/Competency and Objective Statements (The learner will be able to:)	Course Weight	RBT
Total Course Weight						100%	
A. COMPUTER OPERATION BASICS						12%	
				101	Understand fundamental procedures and expectations used in computer industry	8%	B2
	5.1	5.5		101.01	Use appropriate safety procedures.	2%	
	5.2	5.5		101.02	Explain environmental impacts and controls.	2%	
	5.4			101.03	Demonstrate proper communication and professionalism.	2%	
	5.3			101.04	Explain the fundamentals of dealing with prohibited content/activity.	2%	
				102	Understand the various uses, characteristics and functions of computer and device types	4%	B2
				102.01	Describe how computers and their uses have changed over time.	2%	
		1.2, 3.3 5.1		102.02	Categorize types of computers, their uses, characteristics, and functions.	2%	
B. MANAGING PC HARDWARE						60%	
				103	Understand core PC components	25%	B2
1.2, 4.1		2.3		103.01	Differentiate between motherboard components, their purposes, and properties.	9%	
1.6, 4.1		2.3		103.02	Differentiate among various CPU types and features and select the appropriate cooling method.	6%	
1.3, 4.1		2.3		103.03	Compare and contrast RAM types and features.	6%	
1.8, 4.1		2.2, 2.3		103.04	Give examples of appropriate power supplies for various scenarios.	4%	
				104	Understand additional PC components	20%	B2
1.5, 4.2		2.1, 2.3 4.3		104.01	Explain characteristics and functions of storage devices.	4%	
1.4		2.3		104.02	Explain configuration of expansion cards.	3%	
1.10 4.3		2.1		104.03	Classify types and features of display devices.	3%	
1.12- 1.15 4.3		2.1		104.04	Explain characteristics and functions of peripheral devices including printers.	7%	
1.7 1.11		2.2		104.05	Categorize connector types and cables.	3%	
				105	Understand compatibility and configuration	15%	B2
				105.01	Explain the causes of various compatibility issues.	2%	
1.9		1.2		105.02	Compare appropriate components for custom configurations.	4%	



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3.1-3.3 3.5, 4.5				105.03	Explain hardware and display components for laptop configuration.	6%	
1.1				105.04	Describe BIOS settings.	3%	
C. NETWORKING						28%	
				106	Understand networking fundamentals	13%	B2
2.7		4.2, 4.3	1.1	106.01	Classify various types of networks.	2%	
2.8			2	106.02	Compare and contrast network devices, their functions and features	2%	
2.1, 2.2				106.03	Differentiate among various types of network cables and connectors.	2%	
2.7		4.2		106.04	Compare and contrast WAN connection types and features.	2%	
2.3, 2.4		4.3	3	106.05	Explain network protocols and services.	5%	
				107	Install and configure networks	15%	C3
2.9			2	107.01	Use appropriate tools for network cabling and connections.	2%	
2.5, 2.6 2.9		4.1	2.2	107.02	Install, configure, and deploy a SOHO wireless/wired router using appropriate settings.	6%	
4.4		5.3		107.03	Resolve common problems with wired and wireless networks.	7%	