44 Calle Dr. Santiago Veve San Germán, PR 00683

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#### **SYLLABUS**

#### GENERAL INFORMATION

Course Title: IT Essentials

Code: CCNA 1001

Contact Hours: 43 hours

Academic Term: August 12, 2021 to September 15, 2021

Professor: Joel Vargas Ramos Email: jvargas@passwordpr.com

#### COURSE DESCRIPTION

This Course is aimed at developing skills and abilities necessary to assemble components based on customer requirements, install, configure and maintain devices, PCs and software for end users, understand the basic principles of network systems and security / forensic analysis, diagnose, solve and adequately and securely document common hardware and software problems while applying problem solving skills. Successful candidates will also serve the appropriate client; They will understand the basic fundamentals of virtualization, image processing and implementation. This course is aimed at obtaining the CompTIA A + certification.

## **GENERAL OBJECTIVES**

Configure, differentiate, install, identify, explain and compare through physical and virtual laboratories the objectives corresponding to CompTIA certification exam A + 220-901 in hardware, network systems, laptops, printers and operations procedures respectively. At the end of the course the student will obtain the necessary practice to master the skills established by the computer industry.

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#### **SPECIFIC OBJECTIVES**

## **Lesson 1: Installing and Configuring PC Components**

- Use appropriate Safety Procedures
- PC Components
- Common Connections Interface
- Install Peripheral Devices
- Troubleshooting Methodology

# Lesson 2: Installing, Configuring and Troubleshooting Display and Multimedia Devices

- Install and Configure Display Devices
- Troubleshoot Display Devices
- Install and Configure Multimedia Devices

## Lesson 3: Installing, Configuring and Troubleshooting Storage Devices

- Install System Memory
- Install and Configure Mass Storages Devices
- Install and Configure Removable Storage
- Configure RAID
- Troubleshooting Storage Devices

## Lesson 4: Installing, Configuring and Troubleshooting Internal System Components

- Install and Upgrade CPUS
- Configure and Update BIOS/UEFI
- Install Power Supplies
- Troubleshooting Internal System Components
- Configure a Custom PC

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# **Lesson 5: Network Infrastructure Concepts**

- Wired Networks
- Network Hardware Devices
- Wireless Networks
- Internet Connection Types
- Network Configuration Concepts
- Network Services



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Days	Modules	Works
Class #1	Lesson 1: Installing and	• Pre-Test
Module 1	<b>Configuring PC Components</b>	Comprehension Test
	<ul> <li>Use appropriate Safety</li> </ul>	1681
	Procedures	• Forums 1
	<ul> <li>PC Components</li> </ul>	
	Common Connections	
	Interface	
Class #2	Install Peripheral Devices	• Quiz 1
Module 1	<ul> <li>Troubleshooting</li> </ul>	
	Methodology	
Class #3	Lesson 2: Installing, Configuring	• Forums 2
Module 2	and Troubleshooting Display and	
	Multimedia Devices	
	<ul> <li>Install and Configure</li> </ul>	
	Display Devices	
	<ul> <li>Troubleshoot Display</li> </ul>	
	Devices	
	<ul> <li>Install and Configure</li> </ul>	
	Multimedia Devices	
Class #4	Lesson 3: Installing, Configuring	Mid-Term
Module 3	and Troubleshooting Storage	Exam
	Devices	
	Install System Memory	
	<ul> <li>Install and Configure Mass</li> </ul>	
	Storages Devices	
Class #5	Install and Configure	• Quiz 2
Module 3	Removable Storage	• Forums 3
	<ul> <li>Configure RAID</li> </ul>	
	• Troubleshooting Storage	
	Devices	



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Class #6	Lesson 4: Installing, Configuring	• Forums 4
<b>Module 4</b>	and Troubleshooting Internal	
	<b>System Components</b>	
	<ul> <li>Install and Upgrade CPUS</li> </ul>	
	<ul> <li>Configure and Update</li> </ul>	
	BIOS/UEFI	
	<ul> <li>Install Power Supplies</li> </ul>	
Class #7	Troubleshooting Internal	• Quiz 3
<b>Module 4</b>	System Components	• Forums 5
	<ul> <li>Configure a Custom PC</li> </ul>	
Class #8	Lesson 5: Network Infrastructure	Post-Test
Module 5	Concepts	Comprehension
	<ul> <li>Wired Networks</li> </ul>	<ul> <li>Final Exam</li> </ul>
	<ul> <li>Network Hardware Devices</li> </ul>	
	<ul> <li>Wireless Networks</li> </ul>	
	• Internet Connection Types	
	Network Configuration	
	Concepts	
	Network Services	

## **Forums:**

- Foro 1: ¿Porque los Juego Retro no se ven bien en tu monitor Moderno?
- Foro 2: Vulnerabilidades en las CPU AMD
- Foro 3- Intel VS AMD la lucha por la mejor CPU Cambia
- Foro 4: ¿Tiene Mejor Enfriamiento una Laptop si le eliminamos el Lector Óptico?
- Foro 5: Inteligencia Artificial- Que es y cómo funciona



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## **EVALUATION CRITERIA**

CRITERIA	Grade total
1 Mid-Term Exam	100
1 Final Exam	100
Quizzes	100
Forums 1-5	100
Total	400

<sup>\*4</sup> Points less for each absence.

## **EDUCATIONAL RESOURCES**

- Pengelly, J. (2020). The Official CompTIA A + Core 1 Student Guide (Exam 220-1001). Ebook CompTIA. Downers Grove, Illinois
- Neo LMS (2021). CompTIA IT Essentials. passwordtech.edu20.

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<sup>\*</sup>Assignments are always due in class on the day designated. You are responsible for any work lost due to technical problems, etc. Late papers will lose a letter grade for each day that they are late. Any exceptions must be properly documented and discussed in advance for an extension to be arranged.

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## **NOTES**

- **Reasonable Accommodation:** Any student who requires reasonable accommodation must request them at the beginning of the course or as soon acquire the required knowledge that through the Professor in charge and be notifying the Academic Director.
- Honesty, fraud, plagiarism: Dishonesty, fraud, plagiarism and any other inappropriate behavior about the student's academic performance, constitute violations of the catalog of the institution, its Rules of Conduct and Duties of Student. Major infractions, as provided in the catalog may result in the suspension of the institution for a defined time or permanent expulsion as stipulated in the Rules of Conduct and Duties of Student.