**SYLLABUS**

**GENERAL INFORMATION**

Course Title: Network +

Code: PWNE 1010

Contact Hours: 42.5 hours

Academic Term: August 27, 2020 / September 28,2020

Professor: Joel Vargas

Email: [jvargas@passwordpr.com](mailto:jvargas@passwordpr.com)

**COURSE DESCRIPTION**

This course will include the knowledge and skills required to troubleshoot, configure, and manage common network wireless and wired devices, establish basic network design and connectivity, understand and maintain network documentation, identify network limitations and weaknesses, and implement network security, standards, and protocols. The student will have a basic understanding of emerging technologies including unified communications, mobile, cloud, and virtualization technologies. This course will prepare the student to take the exam certification for CompTIA Network + N10-007.

**GENERAL OBJECTIVES**

It is expected that at the end of the course, the student can:

1. Define Network Architecture
2. Define Network Operations
3. Apply Network Security
4. Execute Network Troubleshooting
5. Apply Industry Standards, Practices and Network Theory

**SPECIFIC OBJECTIVES**

**1.0 Routing IP Packets**

* Basic Routing Process
* Source of Routing Information
* Routing Protocols Characteristics
* Address Translation
* Multicasting Routing

**2.0 Wide Are Networks (WAN)**

* WAN Properties
* WAN Technologies

**3.0 Wireless Technologies**

* Introducing Wireless LAN
* Deploying Wireless LAN
* Securing WLAN

**4.0 Network Optimization**

* High Availability
* QOS Technologies
* SOHO Network Design

**5.0 Command Line Tools**

* Windows Command
* UNIX Commands

**6.0 Network Management**

* Maintanance Tools
* Network Documentation
* Monitoring Resources and Reports
* Remote Access Methods

**7.0 Network Security**

* Security Fundamentals
* Categories of Networkds Attacks
* Defending Against Attacks
* Firewalls
* Virtual Private Networks
* Intrusion detection and Prevention

**8.0 Network Policies and best Practices**

* Policies
* Best Practices

**9.0 Network Troubleshooting**

* Troubleshooting Basics
* Specialized Networks

**Evaluation Criteria**

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

\*6 Points less for each absence.

\*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.

**EDUCATIONAL RESOURCES**

* + Sequeira, A. (2016*). CompTIA Network + N10-007 Cert Guide: Learn, Prepare and practice for exam Success.* Indianapolis, Indiana. Pearson.
  + <http://passwordtech.edu20.org>

**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.