

Real Training. Real Practice. Real Results.



## Systems Administration



### Prerequisites

It is not required that students have specific expertise with regards to Systems Administration, however, a four year degree from an accredited university is preferred.



### Program Goals

A System Administrator is an individual responsible for the upkeep, configuration, and reliable operation of computer systems. Students that are enrolled in the Systems Administration certificate program will gain a multitude of applicable computer skills. Networking, system maintenance, programming language, and information systems security are all part of the coursework. By the end of the course, participants will be able to design, maintain, and secure specific operating systems, such as UNIX/Linux, server administration for Microsoft Windows, securing networks and operating systems, networking for system administrators, system formulas and data modeling, Shell scripting, Java, Perl and C++ languages, program operating systems and system maintenance techniques.



## Professional Objectives

The objective of this program is to empower students to become System Administrators by combining the skills of both network and security professionals. Over the course of the program, the students will develop the following skills:

- Design, plan, implement and fine tune IT Infrastructure and systems.
- Determine the type of technology required to meet the needs and objective of the applications.
- Implement essential networking skills such as installing, configuring and troubleshooting the devices.
- Demonstrate the ability to diagnose and solve operating system problems.
- Manage IT resources to monitor, optimize and secure network software and hardware.
- Develop the ability to transfer knowledge to users by providing maintenance plans, technical details and training.
- Enforce and maintain security policies for the computer system and network.



## Core Courses

- ISA 1001 Secure Computer User | 16 hours
- ISA 1002 Introduction to Cyber Security | 48 hours
- PMP 1001 ITIL Foundation | 24 hours
- NET 1003 Introduction to Routing and Switching | 40 hours
- NET 1006 Introduction to Linux | 40 hours
- DEV 1002 Introduction to Python Programming | 40 hours
- DEV 1003 Big Data & Splunk Analytics | 40 hours
- **Total Program Clock Hours | 232**



## Learning Outcomes

Upon completion of the program, the graduate will be able to:

- Conduct routine audits and verify usage of ITIL & ITSM processes.
- Manage servers and networking equipment by installing, maintaining and upgrading Linux and Microsoft Windows machines.
- Ensure high availability and acceptable levels of performance of mission critical host computer resources as per the COOP plan.
- Assist developers by writing Python programs to automate tasks for systems-related requests.
- Perform operating system updates, patches, and configuration changes for system administration.
- Maintain backups to comply with disaster recovery protocols and perform periodic testing.
- Analyze system logs using Splunk for data comprehension, parsing and manipulation to identify potential security issues.