IT 0110 - INSTALLING, CONFIGURING AND ADMINISTERING A CLIENT OS

Catalog Description

Formerly known as CIS 141
Advisory: Completion of IT 105 with grade of "C" or better
Hours: 72 (54 lecture, 18 laboratory)
Description: Setup and support for a desktop operating system using a current desktop operating system in a networked environment. Creation of local and domain-level accounts, creation of shared resources, use of network services, remote access, resource management and monitoring, and security considerations. (CSU)

Course Student Learning Outcomes

- CSLO #1: Research, analyze and evaluate information to solve business problems related to Client OS configuration concepts.
- CSLO #2: Design and produce client administration solutions incorporating current trends, security, and best practices.
- CSLO #3: Employ OS administration concepts and terminology in professional communication.
- CSLO #4: Demonstrate marketable client configuration career skills.

Effective Term

Fall 2023

Course Type

Credit - Degree-applicable

Contact Hours

72

Outside of Class Hours

90

Total Student Learning Hours

162

Course Objectives

Learning Objectives:
1. Discuss Operating System hardware requirements
2. Perform a clean installation on desktop, laptop, VMware, VirtualBox, and cloud environments.
3. Manage devices and data on a Windows and Linux desktop
4. Manage applications on a Windows and Linux desktop
5. Configure storage and connectivity on a Windows and Linux desktop.
6. Maintain Linux and Windows client OS via updates, patches
7. Discuss and perform Disaster Recovery in a Windows and Linux desktop.
8. Discuss Open-Source software and licensing on Windows and Linux
9. Discuss the Windows and Linux Desktop environment and use case
10. Discuss and perform the Linux command line functions
11. Discuss and perform Windows command line and PowerShell functions
12. Discuss and perform security and file permissions in a Windows and Linux desktops
13. Discuss and perform bash scripting in a Linux desktop
14. Discuss and perform PowerShell scripting in a Windows desktop
15. Discuss how to manage and deploy a client OS in a cloud environment
Laboratory Objectives:
1. Access and configure network protocols via command line or from an application.
2. Implement various installation options for Windows and Linux client OS.
3. Manage disk and file management systems on Windows and Linux desktops
4. Configure system Security settings on Windows and Linux client OS.
5. Configure system and -data recovery on Windows and Linux client OS.
6. Manage and maintain Windows and Linux client OS in a cloud environment

General Education Information

- Approved College Associate Degree GE Applicability
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

Articulation Information

- CSU Transferable

Methods of Evaluation

- Objective Examinations
  - Example: Based upon course readings and class discussions relating Desktop configurations, students would be required to take a quiz relating to chapter content, and to explain issues pertaining to proper desktop configurations. Example: In your own words (no copy/paste allowed) identify desktop policies pertaining to restricting user access to PowerShell. Instructor will grade based on level of understanding shown in the response.
- Problem Solving Examinations
  - Example: Students will be provided with a virtualized environment with various Windows systems. Students would have to determine the configuration based on desired outcomes as stated in policies. Pass/Fail grading.
- Projects
  - Example: Given a specific scenario, students would be required to prepare a compliance report detailing configuration settings enforced. Student performance would be based upon a rubric designed to incorporate both the requirements of a compliance report, as identified course readings, and the clearness of plan response instructions.
- Skill Demonstrations
  - Example: Students will be provided lab assignments based on the weekly topic and required to complete the tasks outlined. Example. Students will configure desktop settings given a set of parameters, to include network configuration, firewall configuration and password policies. Students will capture images to show the process and submit for grading. Grading will

be based on a complete set of images with proper notations as described in the instructions. Pass/Fail grading.

Repeatable

No

Methods of Instruction

- Laboratory
- Lecture/Discussion
- Distance Learning

Lab:

1. Instructor will guide students through hands-on lab exercise to configure Windows local policies. Students will configure policies on Windows OS systems based on class discussions. (Objective 2)

Lecture:

1. Students will read weekly assignments related to the Windows OS Operating System. The instructor will lead a review discussion on the topics covered. (Objective 1)

Distance Learning

1. Following an instructor-led online lecture on company policies, students will be provided with a written scenario, outlining a company's Desktop policies. Students will then configure and test Desktops to that policy. (Objective 12)

Typical Out of Class Assignments

Reading Assignments

1. Students read from the course text. For example, students read the textbook chapter on Deploy Windows and answer end of chapter questions. 2. Students perform Windows installation in a virtualized environment guided by textbook specifications.

Writing, Problem Solving or Performance

Example 1: Students will search and configure non-standard device drives on Windows operating systems, as per textbook guidelines. Example 2: Detail the specific differences between virtualized networks available for Windows systems. Students will also discuss use case between the scenarios.

Other (Term projects, research papers, portfolios, etc.)

Required Materials

- Exam Ref MD-100 Windows 10
  - Author: Andrew Bettany
  - Publisher: Microsoft Press
  - Publication Date: 2019
  - Text Edition: 1st
  - Classic Textbook?: No
  - OER Link:
  - OER:

Other materials and-or supplies required of students that contribute to the cost of the course.