Course Outline

2026-2027 Catalog

CSCI 52 - IT Support Professional

Catalog Description

Transfer Status: CSU

Unit(s): 3.00

Lecture: 34.00 Contact hours/68.00 Out of class hours/102.00 Total hours/2.00 Unit(s)

Lab: 51.00 Contact hours/0.00 Out of class hours/51.00 Total hours/1.00 Unit(s)

Total: 85.00 Contact hours/68.00 Out of class hours/153.00 Total hours/3.00 Unit(s)

Course Description: This is a 5-module industry certification program to prepare for an entry-level customer support job in IT. It will provide an understanding of the soft skills required for customer service and technical support fundamentals, computer networking, being an operating systems power user, basics of systems administration and supporting infrastructure services, and IT security.

Objectives

Upon successful completion of this course, the student should be able to:

1. Understand and manage the different facets of Information Technology: computer hardware, the Internet, computer software, troubleshooting, and customer service.
2. Explain the fundamentals of modern networking technologies and protocols, cloud technologies, network services, applications, and network troubleshooting.
3. Describe the main components of Linux and Windows operating systems, and be able to perform critical tasks like managing software and users, and configuring hardware.
4. Maintain a multi-user computing environment. Understand infrastructure services, and typical cloud setups as well as the selection of cloud resources, manage and configure servers, and use industry tools to manage computers, user information, user productivity, and disaster recovery.
5. Summarize IT security concepts, tools, and best practices. Understand and prevent threats and attacks. Evaluate encryption algorithms, define the three As of information security: authentication, authorization, and accounting, assess security solutions from firewalls to Wifi encryption options. Compose a multi-layered, in-depth organizational security architecture.

Course Content

Topic Titles / Suggested Time Topic

Lecture

Topics	Lec Hrs
Introduction to IT	1.00
Hardware	1.50
Operating Systems	1.50
Networking Basics	1.00
Software	0.75
IT Troubleshooting	1.25
Introduction to Networking	1.00
The Network Layer	1.50
The Transport and Application Layers	1.00
Networking Services	1.25
Connecting to the Internet	1.00
Troubleshooting and the Future of Networking	1.00
Navigating the System as a Power User	1.50
Users and Permissions	1.50
Package and Software Management	1.00
Filesystems	1.00
Process Management	1.00
Operating Systems in Practice	1.00
What is System Administration?	1.00
Network and Infrastructure Services	1.50
Software and Platform Services	1.00
Directory Services	2.00
Data Recovery & Backups	1.00

Topics	Lec Hrs
Understanding Security Threats	1.00
Pelcgbybtl (Cryptology)	1.50
AAA Security (Not Roadside Assistance)	1.00
Securing Your Networks	1.25
Defense in Depth	1.00
Creating a Company Culture for Security	1.00
Total Hours:	**34.00**

Lab

Topics	Lab Hrs
Introduction to IT	1.00
Hardware	2.00
Operating Systems	1.50
Networking Basics	1.00
Software	1.00
IT Troubleshooting	1.00
Introduction to Networking	2.00
The Network Layer	2.00
The Transport and Application Layers	2.00
Networking Services	2.00
Connecting to the Internet	2.00
Troubleshooting and the Future of Networking	2.00
Navigating the System as a Power User	1.00
Users and Permissions	0.50
Package and Software Management	2.00
Filesystems	0.50
Process Management	1.00
Operating Systems in Practice	1.00
What is System Administration?	2.00
Network and Infrastructure Services	3.00
Software and Platform Services	3.00
Directory Services	3.00
Data Recovery & Backups	3.00
Understanding Security Threats	2.25
Pelcgbybtl (Cryptology)	2.25
AAA Security (Not Roadside Assistance)	2.00
Securing Your Networks	2.00
Defense in Depth	1.00
Creating a Company Culture for Security	2.00
Total Hours:	**51.00**

Methods of Instruction

A. Collaborative Group Work
B. Demonstrations
C. Lecture
D. Multimedia Presentations
E. Reading Assignments

Methods of Evaluation

A. Exams/Tests
B. Quizzes
C. Oral Presentation
D. Lab Projects
E. Written Assignments

Examples of Assignments

Reading Assignments

1. Read the SANS institute white paper on The OSI Model: An Overview. Be ready to discuss the reasoning behind the separate layers.
2. Read the article: The Top DNS Servers And What They Offer posted: https://blog.dnsimple.com/2015/02/top-dns-servers/ Be prepared to explain the DNS hierarchy.

Writing Assignments

1. Write a two-page Acceptable Use Policy for school district employees.
2. Write a two-page essay that explains basic computer security and preventative maintenance

Out-of-Class Assignments

1. Research a Dell, HP, or Mac user support website. Be prepared to discuss how easy it was to navigate and find solutions to common problems.
2. Using Glassdoor, Career Builder, Indeed, or LinkedIn find the skills that are most sought after. Compare the results to local job listings. Be prepared to discuss your findings.

Minimum Qualifications

Computer Service Technology
Computer Information Systems

Created/Revised by: Fischer, Linda
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