

CSC 353 - SYSTEM ADMINISTRATION

CREDIT HOURS: 3

PREREQUISITES: CSC 201 or 241; CSC 211

GRADE REMINDER: Must have a grade of C or better in each prerequisite course.

CATALOG DESCRIPTION

The configuration, installation and maintenance of a computer using a current operating system in a networked environment. Emphasis will be placed on resource management, performance and security. May not be used to satisfy computer science requirements for a major or minor in computer science or computer information systems.

PURPOSE OF COURSE

To acquaint the student with operating system and network administration through the assignment of a variety of problems requiring system design, development and implementation.

EDUCATIONAL OBJECTIVES

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

1. Demonstrate an understanding of operating systems concepts.
2. Maintain a networked computer system.
3. Describe the life-cycle of a computer.
4. Identify tools and techniques for system administration.
5. Configure, install, and maintain a networked computer system.
6. Identify relevant security issues.

CONTENT

Hours

Introduction and Concepts	5
Process Management	
Memory Management	
Storage Management	
System Protection	
Installation.....	1
Installation and Configuration	
Process and Documentation	
User Management	3
Create/Delete/Update	
Groups and Permissions	
Policies and Procedures	
File Systems	6
Format and Layout	
Organization and Operation	
Configuration	
Peripherals.....	3

Hardware Management
Printer Installation, Configuration, Management
Device Driver Installation, Configuration, Management

Networking	6
Network Interface Configuration	
Setup and Masking	
Wireless	
Applications	6
Installation, Configuration, Management	
Office Suite	
ISV Software	
Utilities	
Policies and Procures	
Performance	5
Tuning - Files System, Tools (Defragment, Compress, etc.)	
Tasks - TSR issues	
Registry Management	
Security	4
Tools - Web Setup, Firewalls, Virus, Spyware, blockers	
Policies and Procedures - Access/Permissions/Accounts	
Maintenance	3
Backup/Restore	
RAID Organization and Operation	
Hardware/Software Updates	
Exams (plus final)	3
	TOTAL 45

REFERENCES

Frisch, A., Essential System Administration, O'Reilly & Associates, 3rd Ed., 2002.

Hassel, J., Learning Windows Server, O'Reilly & Associates, 2nd Ed., 2003.

Hein, T., Nemeth, E., and Snyder, G., Linux Administration Handbook, Prentice Hall, 2002.

Installing, Configuring, and Administering Microsoft® Windows® XP Professional (70-270), 2nd Ed.,
<http://www.microsoft.com/MSPress/books/7721.asp>

Microsoft® Windows® XP Inside Out, 2nd Ed., <http://www.microsoft.com/MSPress/books/7109.asp>

Microsoft® Windows® XP Networking Inside Out, <http://www.microsoft.com/MSPress/books/5885.asp>

Microsoft® Windows® XP Professional Administrator's Pocket Consultant, 2nd Ed.,
<http://www.microsoft.com/MSPress/books/7777.asp>

Microsoft® Windows® XP Networking and Security Inside Out: Also Covers Windows 2000
<http://www.microsoft.com/MSPress/books/7110.asp>

Nemeth, E. et al, UNIX System Administration Handbook, Prentice Hall, 3rd Ed., 2000.

Supporting Users and Troubleshooting a Microsoft® Windows® XP Operating System (70-271)
<http://www.microsoft.com/MSPress/books/7250.asp>

Supporting Users and Troubleshooting Desktop Applications on a Microsoft® Windows® XP Operating System (70-272), <http://www.microsoft.com/MSPress/books/7576.asp>

Williams, R., and Walla, M., The Ultimate Windows Server 2003 System Administrator's Guide, Addison-Wesley, 2003.