

## ***IT 442 Windows System Administration (a new course)***

### **Course Description**

This is an introduction to the process of choosing, installing, configuring and maintaining Microsoft Windows client and server systems. Topics include user management, file systems, network domains and domain management, mailers, and printing. Students get practice in writing scripts for performing maintenance tasks. Also, students learn how these tasks fit into the more general system administration process.

### **Course Goals**

The goal of this course is to introduce the student to Windows client and server (and Windows network) administration. Microsoft Windows differs from UNIX in several ways:

- UNIX is an open-source operating system; one may read the source code to determine how an application or systems tool works. Windows is closed; one must rely on the (Microsoft) documentation as to how a program works.
- The principal interface to UNIX for the system administrator is the command line. The principal interface to Windows is the (More graphical and more directive) Wizard.
- Windows, like UNIX, does support scripting. While UNIX scripts are most often written in shell script and Perl, Windows server scripts are usually written in VBScript.

Students will learn how to install, configure, and administer the most current Windows client and server architectures.

### **How the Course Serves Students**

IT442 is a required course in the System Administration track of the new BS in Information Technology (IT) degree, offered jointly by the Department of Computer Science (CSM) and the MSIS Department (CM). The System Administration track is offered by the Computer Science Department. The track's purpose is to prepare the student for a career in computer system administration and/or information technology in general.

### **Syllabus**

- Installing and configuring Windows client and server operating systems.
- Managing users and groups.
- Window Network Administration.
- Interoperating with UNIX.

- Configuring mail services.
- Deploying terminal services.
- Internet services and servers.
- Performance monitoring.
- Network and server security.
- Troubleshooting and recovery.
- Using the registry.

## Projects

Much of the material in this course will be transmitted by way of hands-on projects, where students, working in small teams, set up small networks of computers running Windows.

- Installing a Windows client on a PC.
- Installing a Windows server.
- Setting up a network of Windows machines.
- Defining and implementing a domain
- Installing and configuring a domain name server (DNS and WINS)
- Installing and configuring a network files system (NFS)
- Installing and configuring print services
- Installing and configuring Email
- Installing and configuring DHCP
- Installing and configuring a local firewall, antivirus software, antiSpyware, and antiPhishing software.
- Set up OS patching, both manually and automated (using WUS); application patching (using MSUpdate and WUS).
- Setting up a local firewall
- Backup, restore, vaulting and archiving (disk to tape, extranets, disk to disk to tape).
- Setting up and using remote access management: Remote Desktop and VPN
- Merging with a UNIX Network.
- Setting up an educational network (allowing professors, students and graders to co-exist).

## Grading

Projects and Engineering Notebook	50%
Midterm Exam	20%
Final Exam	30%

## **Textbooks and Readings**

1. Mark Minasi and John Paul Mueller. *Mastering Windows Vista Business: Ultimate, Business, and Enterprise*. Sybex, 2007.
2. Mark Minasi. *Mastering Windows Server 2003*. SYBEX, 2003.
3. Mark Minasi. *Mastering Windows Server 2003 Upgrade Edition for SP1 and R2* [a supplement to *Mastering Windows Server 2003*]. SYBEX, 2006.
4. Charlie Russel, Sharon Crawford and Jason Gerend. *Microsoft Windows Server 2003: Administrator's Companion*. Microsoft Press, 2003.
5. Mark Minasi has an email newsletter web site: <http://www.minasi.com/>
6. Jeremy Moskowitz. *Group Policy, Profiles, and IntelliMirror for Windows 2003, Windows XP, and Windows 2000*. SYBEX 2004.
7. Jeremy Moskowitz has a group policy web site: <http://www.gpanswers.com/>.
8. Mitch Tulloch. *Windows Server Hacks: 100 Industrial-Strength Tips & Tools*. O'Reilly, 2004.
9. Paul Lomax. *VBScript in a Nutshell*, 2d ed. O'Reilly, 2003.
10. Charlie Russel, Sharon Crawford and Jason Gerend. *Windows Server 2003*. Microsoft Press, 2003.
11. Microsoft has the "scripting guys" web site: <http://www.microsoft.com/technet/scriptcenter/default.mspx>

## **Accommodations**

Section 504 of the Americans with Disabilities Act of 1990 offers guidelines for curriculum modifications and adaptations for students with documented disabilities. If applicable, students may obtain adaptation recommendations from the Ross Center for Disability Services, Campus Center 2nd Floor, 2100 Street, Room 2010, 617-287-7430. The student must present these recommendations and discuss them with each professor within a reasonable period, preferably by the end of Drop/Add period.

## **Academic Honesty**

All students are expected to follow the [University's Code of Student Conduct](#). If you are caught cheating, we will follow the guidelines for punishment outlined in the code.

When you turn in work that you have discussed with someone, or which contains ideas that you found in a book, *you must indicate that fact*. We expect you to talk to each other and to read materials other than those assigned. We also expect to see in your work evidence that you have done so. Learning to acknowledge intellectual debts is part of learning. You should be reading, talking to each other, and telling the world that you have done so. When group work is called for the group solution should note whenever a part of the project was done by only a part of the group.

Some kinds of sharing, however, are unacceptable. You may not use the computer to copy someone's work and submit it as your own -- even if you acknowledge that theft! You may not have your friends do your work for you. Versions of some of the assignments in this course may have been given in previous years. You may not use answers to those assignments.