

Roosevelt University: CST 354 – Local Area Networks

Michael E. Ruth, Ph.D.

Course Meetings: Saturdays, 9:30am – 12:15pm @ Schaumburg, Rm. 703

Office: SCH 600WW/Gage, Rm. 502A **Phone:** (312) 281-3303

Office Hours: SCH: SA 12:30pm - 2:30pm or by appointment.

Email: mruth@roosevelt.edu **AIM:** michaelruthphd

Course Description:

A hands-on introduction to the profession of system and network administration focused on learning the core principles of administration including managing systems, managing users, and managing network services. Topics include the installation and configuration of operating systems and network services, managing user accounts, remote administration, routine maintenance tasks, and security. Students will develop these skills using both graphical and command line user interfaces and demonstrate their skills by building and maintaining their own servers using at least two popular operating systems.

Course Prerequisites:

CST 246 with a min grade of C-

Course Objectives:

- Understand the role and responsibilities of system & network administrators.
- Describe the administration of human-computer systems including user, host, and hardware management and the importance of system and network security.
- Develop an understanding of operating systems, such as Windows/UNIX, from an administrative point of view including file systems, processes, and access control.
- Demonstrate proficiency using basic UNIX/Windows graphical & command line utilities to manage user accounts, system resources, and troubleshoot the network.
- Describe and demonstrate proficiency in installing, configuring, and managing network services including Intranet and Internet Services both on-location and remotely.
- Discuss the automation of system administration tasks using scripting languages in Windows/UNIX environments and demonstrate proficiency in writing shell scripts.

Textbooks (required):

**Required: UNIX System Administration Handbook, 3rd Ed. by E. Nemeth, et al.
ISBN: 978-0130206015**

**Required: Windows Server 2008 Inside Out by W. Stanek
ISBN: 978-0735624382**

Recommended: Principles of Network and System Administration 2nd Ed., by M. Burgess

Grading: (+/- grading is used):

- Midterm Exam (20%)
- Final Exam (30%)
- Quizzes/Class Participation (10%)
- Assignments (40%)

Course Policies:

- You only have **two free** absences (3 absences is 20% of course). After that, you will be penalized a letter grade for each additional absence. Make them count!
- **You are responsible** for all course material and announcements regardless of delivery method including lectures, handouts, labs, assignments, quizzes, etc.
- **There will be no make-up examinations.**
 - *If you miss the midterm **due to an emergency**, your final exam will count for both!*
- Late homework will **NOT** be accepted.
- Arrive in class **on time** and **silence all noise-producing equipment!**

Disabilities:

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact the Office of Disabled Student Services, 310 Herman Crown Center, 312-341-3810, or e-mail nlitke@roosevelt.edu as early as possible in the term.

Academic Honesty:

Any instance of cheating will result in a grade of 'F' on that assignment / exam. A second offense will result in an 'F' in the course. Each assignment must represent **your own work**. You may discuss the assignments with other students, but you cannot copy or share assignment artifacts. Grievance procedure is at: [http:// roosevelt.edu/current/judicial/](http://roosevelt.edu/current/judicial/)

Very Tentative Course Schedule:

Date	Topic
8/28	Introduction to 354/System & Network Administration
9/11	Overview of Operating Systems/Windows/UNIX
9/18	Disks, Partitions, & File Systems
9/25	Software Installation/Package Management
10/2	Managing Users (Accounts)
10/9	Automating Administrative Tasks/Review
10/16	Midterm Exam
10/23	Network Administration/Review TCP/IP Networking
10/30	Managing TCP/IP Networking (DNS, DHCP, & Troubleshooting)
11/1	Last Day to Withdraw with a 'W'
11/6	Managing Network Services (HTTP, FTP, Email, etc.)
11/13	Managing Network Services (cont.)
11/20	Intranet (Users & File Systems)
12/4	Remote Administration/Maintenance
12/11	System & Networking Security/Review
12/18	Final Exam!