

Computer Science 501: Systems Administration

<http://classes.cs.uchicago.edu/courses/current/CS501>

Syllabus

Winter 1999

Lecture 1: Introduction

- Course logistics
- Installing a UNIX
- Information resources
- Shell programming
- Homework: USP Ch. 1-4

Lecture 2: Getting acquainted

- Filesystem structure
- Users and groups
- Processes
- More shell programming
- Homework: USP Ch. 5-9; USAH Ch. 1, 3-5

Lecture 3: Booting

- Supervisor applications (BIOS, Monitor)
- Sequence of events at startup & run levels
- Services and daemons
- Homework: USP Ch. 10-13; USAH Ch. 2, 10, 31

Lecture 4: Basic administrative tasks

- Adding/removing users
- Adding/removing resources
- Adding/removing software
- Monitoring users, resources, and software
- Homework: USAH Ch. 6-9

Examination:

- Install Linux on a PC and Solaris on a Sun
- Add a user and a hard drive
- Write a shell script to clean up temporary files
- Install 2 pieces of software, add one service
- Discuss resource misuse on a given machine.
- Specifics to be announced

Lecture 5: Entropy

- NIS/NFS
- Automounter
- Rdist
- Cfengine
- Homework: USAH Ch. 17,18

Lecture 6: Services

- DNS, Web, FTP
- Mail
- Printing
- Samba
- Homework: USAH Ch. 16, 21, 25

Lecture 7: Security & Backups

- Patches
- Monitoring
- Backups
- Homework: USAH Ch. 12, 23

Lecture 8: Accounting & Analysis

- Policies & Quotas
- Monitoring
- Performance
- Test suites
- Homework: USAH Ch. 26-28, 32

Examination:

- 2 client machines, 1 server
- Set up NIS, NFS, DNS, and Mail
- Update software by `rdist`
- Set up accounting & logging
- Check & fix security problems
- Specifics to be announced