

COURSE TITLE AND NUMBER:

North Central **Michigan College**

NCMC MASTER COURSE SYLLABUS

Last Date Revised: 5/30/2002

DIVISION/AREA: Business and Technology

DEPARTMENT:

DIVISION DIRECTOR: Robert J. Marsh, Ph.D., P.E.

ORIGINATOR:

DEAN OF INSTRUCTION: Timothy Dykstra, Ph.D.

TOTAL HOURS OF INSTRUCTION: 3 LECTURE: 2 LAB: 2 TOTAL CONTACT HOURS: 70.4

COURSE NUMBER: CIS 240

CREDIT HOURS: 3

COURSE TITLE: Unix System Administration

TRANSFERABLE YES: NO: X TO:

PREREQUISITE(S)/COREQUISITE(S)/ADVISORY: CIS 140

CATALOG DESCRIPTION:

This course will introduce students to administration of UNIX based computers and networks. Students will learn how to install UNIX, modify default settings, add serial and parallel ports, configure hardware and install software. Topics include: printing, user administration, network administration, kernel modifications, backups, disk administration, file permissions, auditing, monitoring and implementation planning.

GENERAL EDUCATION OUTCOMES:

- Think critically and analytically
- Independently acquire knowledge
- Select and use mathematical tools for problem solving and decision making

COURSE OBJECTIVES & OUTCOMES:

At successful completion of this course, student will be able to:

- install Linux/UNIX, including file system understanding.
- add/remove hardware.
- configure and rebuild kernel.
- administer users
- perform disaster recovery

COURSE TITLE AND NUMBER:

- administer printers
 - administer sendmail, Apache, dns, ftp, telnet, and dhcp.
 - successfully complete the objectives on the CompTia Linux+ examination.
 -
-

METHODS OF INSTRUCTION:

Lecture and in class exercises in computer lab.

METHODS OF EVALUATION:

Lab one	Chapters 2,3	10 pts.
Lab two	Chapters 4,5	10 pts.
Lab three	Chapters 6, 11-13	10 pts.
Lab four	Chapters 34,35	15 pts.
Lab five	Chapters 7, 8	10 pts.
Lab six	Chapters 9, 10	10 pts.
Lab seven	Chapters 29, 30	15 pts.
Lab eight	Chapters 14, 15, SR1	15 pts.
Lab nine	Chapters 16 &19	10 pts.
Lab ten	Chapter 20	15 pts.
Lab eleven	Chapter 21	15 pts.
Lab twelve	Chapter 22	15 pts.
Quiz one	Chapters 1-6, 11-13	50 pts.
Quiz two	Chapters 14-16, 19-20	50 pts.
Mid Term	Weeks 1-8	100 pts.
Final Exam	Weeks 1-14	100 pts.
TOTAL:		500 pts.

REQUIRED TEXTS: Red Hat Linux System Administration Unleashed, Sams Publishing 2000
 Login and password to computer lab network. (Instructor supplied)
 Two 3.5" HD floppy disks.

OPTIONAL SUPPLEMENTARY MATERIALS:

Reasonable accommodations may be provided for students with documented physical, sensory, cognitive, systemic, and/or psychiatric disabilities. Please contact the Education Opportunity Program (EOP) at (231) 348-6687 to arrange services for this course.

COURSE TITLE AND NUMBER:

TIME ALLOWANCE AND SEQUENCE OF INSTRUCTION:

Week	Topic	Chapater
1	Introduction and overview What is a systems administrator? Essential tools for system administration Installation strategies	1 2 3
2	Where do I find... Starting up and shutting down	4 5
3	System failure diagnosis & recovery Back up and recovery	6 11, 12, 13
4	Tuning your Linux system Customizing the Linus kernel	34 35
5	File systems Adding or replacing disks	7 8
6	Linux & RAID Removable media devices Automation	9 10 33
7	Users & groups Helping users	29 30
8	Mid term examination	
9	TCP/IP & Ethernet Sharing resources, SR1: DHCPD, DNS	14 15
10	Network monitoring Setting up Internet services	16 19
11	Electronic mail	20
12	FTP & Anonymous FTP	21
13	Web serving	22
14	Integrating with Windows NT networks Security and firewalls	17 25, 26, 27, 28
15	Review	
16	Final exam	

APPROVED FOR ADOPTION BY THE CRD/AP COMMITTEE ON _____