

COURSE OUTLINE

COURSE TITLE: **Systems Management II**

CODE NO.: **CS0201**

SEMESTER: **4**

PROGRAM: **COMPUTER ENGINEERING TECHNOLOGY**

AUTHOR: **Fred Carella**

DATE: **Jan 1997**

PREVIOUSLY DATED:

APPROVED:


DEAN


DATE

Length of Course: **15 weeks**

Prerequisites: **CSO 200**

Total Credit Hours: **60**

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COURSE CODE**I. COURSE DESCRIPTION:**

This course prepares the technician for installing, managing and operating multi-user systems such as VMS and UNIX. It develops skill in typical systems management tasks including installation, upgrading, system configuration, security, backups, performance tuning, system monitoring and account management.

The operating systems used will be VMS and LINUX. This is the second of two courses in systems management which will develop the students ability to use and manage various operating systems (CSO 200 was the first course).

II. TOPICS TO BE COVERED:

1. Introduction to the VMS hardware environment.
2. The VMS command line environment and command procedures..
3. VMS installations, management and configuration issues.
4. Introduction to UNIX hardware environment.
5. Installing and setting up a UNIX system.
6. UNIX management and configuration issues

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III. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

A. Learning Outcomes:

	Approx. % of Course Grade
1. Discuss and identify the hardware environment, resources, architecture and describe the Operating Systems role in their management.	5%
2. Demonstrate practical knowledge of the DCL environment and write command procedures demonstrating a fundamental understanding of the file system, logical names, the security system and various system utilities.	20%
3. Demonstrate practical knowledge in the use of system utilities and management functions such as account maintenance, system monitoring, backups and to become familiar with and demonstrate system startup and shutdown procedures.	20%
4. Discuss and identify Linux hardware environment and discuss and identify the various Linux Distributions..	5%
5. Install Linux and configure them as network servers.	25%
6. Perform system management functions such as account maintenance, backups, security.	25%
	100%

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COURSE CODE**B. Learning Outcomes and Elements of the Performance:**

Upon successful completion of this course the student will demonstrate the ability to:

1. Discuss and identify the hardware environment, architecture and resources of the VMS operating system.

Elements of the performance:

- select VAX hardware systems and describe their main features.
 - evaluate the VAX architecture, in particular:
 - CPU.
 - I/O devices and system architecture.
 - disk drives
 - tape drives
 - memory subsystem
 - console subsystem
2. Demonstrate a practical ability within the DCL environment and write command procedures.

Elements of the performance:

- write complex command procedures demonstrating an understanding of:
 - logical names
 - symbols
 - VMS security and file protection mechanisms including ACL's
 - the VMS file system and file I/O

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3. Apply knowledge of VMS system utilities in the management of VMS systems.

Elements of the performance:

- add and maintain user accounts (AUTHORIZE)
- perform backups
- monitor system usage (MONITOR and ACCOUNT)
- understand performance issues and use SYSGEN and AUTOGEN
- install and maintain print and batch queues
- be able to startup and shutdown a VAX system and describe the events that occur.

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4. Discuss and identify the Linux hardware environment and Linux distributions
(Chap 1, 2, 3)

Elements of the performance:

- characterize UNIX, LINUX and describe their history
- choosing the right hardware
- evaluate the various Slackware distribution packages

5. Install Linux and configure as network servers

(Chap 4, 13-16)

Elements of the performance:

- prepare and partition hard drives
- install Linux
- recompile the kernel
- apply an understanding of TCP/IP in the configuration of network support
- identify, modify and maintain network configuration files
- install slip and ppp services.

6. Understand and apply knowledge of system utilities in the administration of a Linux system.

(Chap 7-11)

Elements of the performance:

- understand purpose and role of a system administrator
- start and stop a LINUX system.
- install and manage user accounts
- backup and restore data
- understanding and applying system security
- upgrade and install software

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IV. EVALUATION METHODS:

The mark for this course will be arrived at as follows:

Tests:

outcomes #1, #2, #3	35%
outcome #4, #5, #6	35%

Assignments:

outcomes #1, #2, #3	15%
outcomes #4, #5, #6	15%
Total	100%

The following letter grades will be assigned in accordance with the School of Engineering Technology and the School of Business and Hospitality policies:

Course Grading Scheme

A+	90% - 100%	consistently outstanding achievement
A	80% - 89%	outstanding achievement
B	70% - 79%	consistently above average achievement
C	55% - 69%	satisfactory or acceptable achievement in all areas subject to assessment
R	less than 55%	repeat - the student has not achieved the objectives of the course and the course must be repeated
CR		Credit Exemption
S		satisfactory given at midterm only
U		unsatisfactory given at midterm only
X		a temporary grade

An 'X' grade is limited to instances where exceptional circumstances have prevented the student from completing objectives by the end of the semester. An "X" grade must be arranged before the deadline for grade submission and is granted at the discretion of the Professor. The 'X' grade must also have the Dean's approval and has a maximum time limit of 120 days.

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COURSE CODE**V. SPECIAL NOTES**

1. In order to pass this course the student must obtain an overall **test** average of 55% or better, as well as, an overall **assignment** average of 55%.
2. Assignments must be submitted by the due date according to the specifications of the instructor. Late assignments will normally be given a mark of zero. Late assignments will only be marked at the discretion of the instructor in cases where there were extenuating circumstances.
3. The instructor reserves the right to modify the assessment process to meet any changing needs of the class. Consultation with the class will be done prior to any changes.
4. The method of upgrading an incomplete grade is at the discretion of the instructor, and may consist of such things as make-up work, rewriting tests, and comprehensive examinations.
5. Students with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.
6. Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.

VI. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the instructor.

VII. REQUIRED STUDENT RESOURCES

Text: Using LINUX, Special Edition
QUE. Books

VMS notes, to be supplied by the instructor