VIETNAM NATIONAL UNIVERSITY OF HO CHI MINH CITY
UNIVERSITY OF NATURAL SCIENCES
FACULTY OF INFORMATION TECHNOLOGY

COURSE SYLLABUS

Course Code: TH139

Title: Unix Network Operating System

Credits: 2

Workload:
Lecture hours: **2** periods * **15** weeks = **30** periods
Laboratory hours: **0** periods * **15** weeks = **0** periods
Preparative hours: **2** periods * **15** weeks = 3**0** periods

Prerequisites: N/A

Course Objectives:

This subject provides the students with the knowledge and basic techniques of Unix Network administration.

Main Text: N/A

References:

- *Red Hat Linux Unleashed*
  SAMS Publishing.
- *Unix Unleashed*
  Susan Pepard; Peter Holsberg; Jam C. Armstrong, Jr.; Salim M. Douba; S. Lee Henry; Ron Rose; Richard E. Rummel; Scott Parker; Ann Marshall; Ron Dippold; Chris Negus; John Valley; Dave Taylor; Dav Till., SAMS Publishing.
- *Unix System V Release 4 the Complete Reference*
  Stephen Coffin, OsborneMcGraw-Hill.

Course Outline:

Chapter 1 : Overview about Unix network operating system

1. Development history and Unix OS classification
2. Philosophy of Unix OS
3. File systems of Unix
4. Basic commands in Unix

Chapter 2 : Some concepts and basic services in Unix

1. Introduction to Cron
2. Devices Drivers in Unix
3. File Permission
4. File system organization
5. Log files management in Unix

6. The process concept in Unix

Chapter 3 : Fundamentals of Unix system administration

1. Root account
2. System start and shutdown
3. Mounting file systems
4. Detect and correct errors in file systems
5. File compression with gzip and compress
6. Using *tar*
7. Backups
8. User accounts managing
9. Printing system administration in Unix

Chapter 4 : Shell programming

1. Introduction to Bourne shell – Korn shell – C shell
2. Creating and running shell programs
3. Using variables
4. *test* command
5. Command structures

Chapter 5 : Unix networking

1. Introduction to IP addressing
2. Relationships between TCP/IP and OSI model
3. IP Routing
4. Network configuration files
5. Host files and DNS
6. ARP and RARP protocols
7. ICMP protocol
8. Introduction to Web service
9. Introduction to Ftp service

Grading Final exam : 70%

Assignments: 30%