SYLLABUS

Date: 2016 . 01 . 29 .

Course Name	Linux System	Credit	3
Instructor	Kyungbaek Kim	Lecture Hours	Tuesday 13:30~14:45, Thursday 13:30~14:45
Depart-ment	Electronics and Computer Engineering	Classroom	Engineering building 6 - 102
Office	Engineering building 6 - 715	Counsel Hours	Thursday 11:00 ~ 12:00
Office Telephone	062-530-3438	E-mail	kyungbaekkim@jnu.ac.kr
TA	None	Course Grade	Software Engineering Juniors (2nd year students)
Classifica-tion	Major Selective	Pre-requisites	None

Lecture objectives	# Develop abilities of understanding how the Linux system operates and managing the single user environment. # Develop abilities of operating/managing the Linux system for multiple users. # Develop abilities of building application systems of various purposes by using Linux system.
Course Overview	The main purpose of the undergraduate-level course is to understand the essential knowledge of managing a Linux system and to apply the obtained knowledge to various Linux based systems. The course explores the basic components of a Linux system, including file systems, processes, users, shells and environments of networking, and studies the management techniques for those components. Also, the course covers the basic of shell script languages and text processing techniques.
Teaching Methods	Lecture : 50% Exercises and Homeworks : 50%
Grading System	Attendance : 10% Midterm Exam : 25% Final Exam : 25% Exercises and Homeworks : 40%

References	# Main Contents - Lecture slides provided by the class web page. # Reference Text - UNIX and Linux System Administration Handbook (4th Edition), Evi Nemeth, Garth Snyder, Trent R. Hein, Ben Whaley - Practical Guide to Linux Commands, Editors, and Shell Programming (2nd Edition), Mark G. Sobell - Ubuntu Unleashed 2011 Edition: Covering 10.10 and 11.04 (6th Edition), Matthew Helmke, Andrew Hudson, Paul Hudson # Online Pages - http://www.tldp.org/ (Korean : http://kldp.org/) - http://www.ubuntu.com/

[Relation with Program Outcomes]

No.	Program Outcomes	Weight
1	Ability of applying theories and knowledges obtained from math, basic science, technical studies to the major	100
4	Ability of using techniques, methodologies and tools required to works related to computer and information technology fields.	100
5	Ability of playing a role of a interdisciplinary design team	100

[Weekly Schedule]

Week	Description	Remarks
1	# Introduction of Syllabus # Introduction of Unix/Linux System - History of Linux - Installation of Linux using VMware	
2	# Users and accounts - System Login, logout, and shutdown - Creating/changing users and groups	HW #1
3	# Files and Directories - Handling Files and Directories - Linux Directories - Compressing files and directories	
4	# Access Control of Linux - Changing permission and ownership # File System of Linux - Inode and Directories - Hard and Symbolic Links	HW #2
5	# Shells of Linux	

	- Shell Variables - Basic Shell Commands - Linux Environment	
6	# Documents and Software Packages - Managing documents of Linux - Managing software packages # Text Editors - Vi, Vim - Emacs	HW #3
7	# Text Processing - Filtering texts - Searching with Regular expression	
8	Midterm Exam	
9	# Job and Process Control - Job control commands - Process creation and deletion - Daemon Processes	HW #4
10	# System Logs and Scheduled tasks - System Logs - Cron Jobs # Handling Disks of Linux - Partition of Filesystem - Filesystem Mount and Unmount - Set and view Disk Quotas	
11	# Boot Linux - Boot sequence - Running level and shutdown or reboot the system	HW #5
12	# Network of Linux - Basic Network Commands - Remote accessing - handling servers (ftp, web)	
13	# Shell Programming	HW #6
14	# gcc and projects - Introduce gcc and make - automake and autoconf	
15	Final Exam	

[Previous CQI Contents and Action Plan]

1	Previous CQI Contents

- More exercises are required.
- Need to introduce project management tools such as gcc and make

2	Action Plan

- Increase the frequency of homework assignments
- After shell script part, project management will be introduced.