

Course Information	Course Title	Operating System		Course ID	ICE3014		
	(Course Type)						
	(Credit/ hours per week)	3/3	Version (date)				
Instructor	Prof. Ki Chang Kim, Prof. Deok-Hwan Kim						
Course Learning Objective							
	Course Objectives					Relation with Program Outcomes	
	1	Ability to solve information and communication engineering problems using mathematics, basic science, and engineering knowledge, and information technology.				PO 1	
	2	Ability to use up-to-date information, research results, and appropriate tools to solve information and communication engineering problems				PO 4	
Course Description	Understand the 5 basic OS concepts: Interrupt, Process, File, Memory, Device. Learn the concepts through reading, analyzing, and modification of Linux kernel code.						
Course Outcomes	NO	Details					
		Understand OS basic concepts					
		Analyzing kernel code					
		Modifying kernel code					
(Prerequisites)	C Programming						
(Recommended Courses after This Course)							
Course Software or Tool	Linux (Ubuntu Linux Distribution)						
Textbook	Title	Authors	Publisher	Place	Year	ISBN	
	Handout						
references							
Lecture type	Lecture and Lab practice						
(Notes)							

(Evaluation Criteria)	(Attendance)	10%	(Quiz)	%	(Lab Assignment)	10%	(Etc.)	0%
	(Mid-term Exam)	40%	(Final Exam)	40%	(Total)		100 %	
(Methods of Evaluation)	Assessment will be made on the basis of written examination and lab assignments.							

Weekly Topical Outline of Course		
(1st Week)	Topic	booting process
	Contents	Computer System Structures
	Assignment	
(2nd Week)	Topic	interrupt concept
	Contents	Operating System Structures
	Assignment	
(3rd Week)	Topic	implementing interrupt
	Contents	OS services, system call
	Assignment	
(4th Week)	Topic	implementing keyboard, timer interrupt
	Contents	
	Assignment	
(5th Week)	Topic	process concept
	Contents	
	Assignment	
(6th Week)	Topic	implementing simple process
	Contents	
	Assignment	
(7th Week)	Topic	context switching

Week)	Contents	CPU scheduling ,
	Assignment	
(8th Week)	Topic	Midterm exam.
	Contents	
	Assignment	

(9th Week)	Topic	IPC
	Contents	Process Synchronization
	Assignment	
(10th Week)	Topic	File system
	Contents	File System Interface
	Assignment	
(11th Week)	Topic	implementing file system
	Contents	
	Assignment	
(12th Week)	Topic	Memory
	Contents	
	Assignment	
(13th Week)	Topic	implementing memory manager
	Contents	
	Assignment	
(14th Week)	Topic	paging system, virtual memory
	Contents	

	Assignment	
(15th Week)	Topic	Final examination
	Contents	
	Assignment	
(16th Week)	Topic	
	Contents	
	Assignment	