Syllabus [2025Year 1 Term]

Course Information

Course Title	Advanced Mobile Lab 1	Credits	1
Course Code	521210-1	Required/Elective (For Undergraduate Courses)	Mandatory Major
Department or Major	Department of Mobile Systems Engineering	Language	English
Methods of Teaching		Lecture Room	목1,2,3,4(국제210)
Time Allotment	Lecture(0) Experiments(2) Trainging & Practice(0) Performance(0) Designing & Planning(0)	Cyber Lectures	
Course Type	offline		

Lecturer

Lecturer	Name	Yoo, Seehwan	Rank	Associate Professor	Final Academic Degree	이학박사
	Department & college	Open Source Software Center		Office	International Hall 615	
	Office Phone Number	031-8005-3240		e-mail	seehwan.yoo@dankook.ac.kr	
	Field of Interest					

Course Summary

Course Description	Students can do project Lab. work for assisting mobile processor. Lab. work for getting friendly with Linux, git Course will provide presentation opportunity for their work. IMPORTANT NOTICE! This course is tightly coupled with mobile processor. Please take both courses; or drop them both. Specific schedule is subject to change. Evaluation is based upon your design & implementation. There are several implementation options, based upon the difficulty levels. Most class will be lab work for mobile processor, and taking questions.
Description Related Courses	C programming experience is preferred. The course work will be a fundamental ground work for next-semester classes, OS, mobile programming.
Course Goals	To raise programming skills to develop a small software that requires some data structure and algorithm implementation.
Projected Results	Students would make educational small applications using existing open-source software. Students can become a committer for their own code, and give feedback to serve as a reviewer.
Percentage of the original language classes(%)	

Syllabus

Times	Lecture Topic	Lecture Goals	Lecture Methods	Assignments
1	course introduction	Introduce Linux files work with files, directory file ops copy, delete, directory, user		write your name with vi
2	Using vi editor	Writing Hello world in C with vi Use man page		Calculator with your own ISA
3	Using files in C program	file open, read, write string handling with strtok		
4	Compile with GCC	compile and linking from command line		Single-cycle MIPS
5	File loading and byte encoding	binary file loading and byte encoding		
6	Use structure	work with structures structure and pointer		
7	Midterm exam			Pipeline

Times	Lecture Topic	Lecture Goals	Lecture Methods	Assignments
8	Latch implementation	structure & array use		
9	Binary operation	bitwise and, or, xor		
10	debugging	debug print and GDB stack tracing		
11	project discussion	discussion on project	Open discussion & peer review	Simulator
12	cache simulation	cache structure		
13	cache simulation	cache lookup		
14	project discussion	write with cache	Open discussion & peer review	
15	project discussion	discussion on project	Open discussion & peer review	Final report

Methods of Grading

sequence	Description	Percentage	Details
1	Mid-tem Exam	25%	written exam (hw3)
2	Final-exam	25%	(hw4)
3	Pop Quizzes	0%	
4	Assignments	30%	4 projects (hw1+hw2)
5	Reports	0%	
6	Presentations & Discussions	0%	
7	Attendance	20%	
8		0%	
9	Others	0%	in-class participation
All		100%	

Core of Value

핵심가치	전공역량	역량정의	역량구분	값(%)
혁신 (Discovery)	창의적문제해결 (Creative problem-solving)	주어진 상황과 문제를 창의적으로 해결할 수 있는 능력	부역량	0%
혁신 (Discovery)	도전 (Challenging)	전공 지식을 새로운 분야와 융합하고 아우를 수 있는 능력		0%
혁신 (Discovery)	지식융합 (Knowledge convergence)	새로운 분야를 개척하거나 도전적으로 임할 수 있는 능력		0%

핵심가치	전공역량	역량정의	역량구분	값(%)
헌신 (Dedication)	세계시민 (Universal value)	세계 공동체 구성원으로 전공자로서 국제적 이슈에 대응할 수 있는 능력	주역량	0%
헌신 (Dedication)	상호협력 (Cooperation)	공동의 목적 달성을 위해 타인과 상호협력을 할 수 있는 능력	부역량	0%
헌신 (Dedication)	공동체 (Sense of community)	공동체의 구성원으로서 필요한 태도와 윤리의식을 가질 수 있는 능력		0%
능동 (self- Determination)	자기주도 (Self-Managing)	주어진 상황과 문제를 주도적이고 능동적으로 해결할 수 있는 능력		0%
능동 (self- Determination)	지식활용 (Knowledge application)	주어진 상황과 문제에 대해 논리적으로 파악하고 분석할 수 있는 능력		0%
능동 (self- Determination)	논리적사고 (Logical thinking)	전공관련 지식을 필요에 따라 다양하게 적용하고 활용할 수 있는 능력		0%
능동 (self- Determination)	의사소통 (Articulation)	대화를 통해 다양한 의견을 조율하고 합의를 이끌어 낼 수 있는 능력		0%

Textbook(s) & References

Description	Title	Author	Publisher
Required Textbook	Computer organization and desi	Hennessy, Patterson	MK

Memo

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