Syllabus [2025Year 1 Term]

Course Information

Course Title	Cloud Computing: Introduction and Application of AWS	Credits	3
Course Code	556560-1	Required/Elective (For Undergraduate Courses)	Selective majors
Department or Major	Department of Mobile Systems Engineering	Language	English
Methods of Teaching		Lecture Room	화1,2,3/목10,11,12(국제210)
Time Allotment	Lecture(3) Experiments(0) 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	Cloud computing is defacto standard in modern computing systems. This course will expand ideas of computing systems from networked/distributed systems to recent cloud computing systems.
Description Related Courses	operating systems, system programming computer networks
Course Goals	Problem-solving in recent cloud computing systems Understanding of the technical subject and hands-on working experience
Projected Results	Students will learn basic concepts of cloud computing and will have some hands-on lab experiences.
Percentage of the original langua	

ge classes(%)

Syllabus

Times	Lecture Topic	Lecture Goals	Lecture Methods	Assignments
1	course introduction	course logistics, basic workflow		
2	Concepts in cloud computing	Basic concepts in cloud computing		
3	Review in OS	Design of Computing systems		
4	Review in Computer Networks	Design of Networked systems End-to-end systems design		
5	Distributed Systems I	Reliability and fault-tolerance		
6	Distributed Systems II	Scalability and Replication		
7	Distributed Systems III	RPC and Transactions		
8	Midterm exam week			
9	Project proposal	Elevator review of proposals		
10	Cloud computing & Amazon EC2	PaaS, IaaS, SaaS		
11	Multi-tenant architecture in cloud computing			
12	VMs Federation and Containers	VM and OpenStack, Container and Kubernetes		
13	Security in the cloud	Security and cloud VMs		
14	Some other cloud computing and services	NHN toast, google app engine, MS Azure,		
15	Semester-final wrap-up	Project demo & summary		

Methods of Grading

sequence	Description	Percentage	Details
1	Mid-tem Exam	20%	maybe written test
2	Final-exam	0%	
	All	100%	

sequence	Description	Percentage	Details
3	Pop Quizzes	0%	
4	Assignments	20%	some homework
5	Reports	40%	Project proposal, report, document work, final project work
6	Presentations & Discussions	0%	
7	Attendance	10%	attendance
8		0%	
9	Others	10%	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		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		40%
헌신 (Dedication)	세계시민 (Universal value)	세계 공동체 구성원으로 전공자로서 국제적 이슈에 대응할 수 있는 능력		0%
헌신 (Dedication)	상호협력 (Cooperation)	공동의 목적 달성을 위해 타인과 상호협력을 할 수 있는 능력		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		30%
능동 (self-Determination)	논리적사고 (Logical thinking)	전공관련 지식을 필요에 따라 다양하게 적용하고 활용할 수 있는 능력		30%

핵심가치	전공역량	역량정의	역량구분	값(%)
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	클라우드 컴퓨팅 개념 기술 구축 체험	나연묵, 최종무, 박기웅	홍릉출판사

Memo

Specific schedule is subject to change.

Evaluation is based upon your implementation.
There are several implementation options, based upon the difficulty levels.