

Academic Lesson Plan of Summer 2026

Department: CSE	Semester:6th	Name of the Teaching Faculty: PRANATI PATTANAIK
Subject: Cloud Computing	No. of days/per week class allotted 4p/week	Semester from:22/12/2025
		No. of weeks:15
		Topics to be covered:
WEEK	DAY	TOPIC
1st week	1st	Introduction to cloud computing, historical development
	2nd	Vision of cloud computing, characteristics of cloud computing
	3rd	Cloud computing reference model, cc environment
	4th	Cloud service requirements and dynamic infrastructure
2nd week	1st	Cloud adoption, cloud applications
	2nd	introduction to cloud computing architecture
	3rd	cloud referce model, types of clouds
	4th	cloud interoperability and standards, use cases
3rd week	1st	role of standards in cloud computing environment
	2nd	scalability and fault tolerance, introduction
	3rd	cloud solutions, cloud ecosystem
	4th	cloud business process management
4th week	1st	portability and interoperability, cloud service management
	2nd	cloud offerinf, testing under control
	3rd	clpod service controls, virtual desktop infrastructure
	4th	cloud management and virtual technology
5th week	1st	create a virtualised architecture, data centre
	2nd	resilience, agility, cisco data center network architecture
	3rd	storage ,provisioning, asset management
	4th	concept of map reduce , cloud goverance, load balancing
6th week	1st	high availability, disaster recovery, virtualisation
	2nd	network virtualisation
	3rd	desktop and application virtualization
	4th	desktop as a service , local desktop virtualisation
7th week	1st	virtualisation benefits, server virtualisation
	2nd	block and file level storage virtualisation
	3rd	virtual machine monitor
	4th	infrastructure requirements, VLAN and VSAN
8th week	1st	cloud security
	2nd	cloud security fundamentals and services
	3rd	design principles, secure cloud s/w requirements
	4th	policy implementation
9th week	1st	cloud computing security challenges
	2nd	cloud computing security architecture
	3rd	architectural considerations
	4th	information classification, virtual private networks
10th week	1st	virtual private networks
	2nd	public key and encryption key management
	3rd	digital certificates, key management
	4th	memory cards
11th week	1st	implementing indentity management
	2nd	controls and autonomic system
	3rd	market based management of clouds
	4th	cloud information security vendors
12th week	1st	cloud fedaration , charactrization
	2nd	cloud federation stack
	3rd	third party cloud service
	4th	case study third party cloud service

13th week	1st	case study, google app engine
	2nd	microsoft a zone
	3rd	case study hadoop
	4th	introduction to hadoop
14th week	1st	data sources
	2nd	data storage and analysis
	3rd	a brief history of hadoop
	4th	comparision with other system
15th week	1st	hadoop at yahoo
	2nd	apache hadoop
	3rd	doubt clearing class
	4th	revision on previous year questions and doubt clearing

H. S. Chavhan
18/12/25

Signature of Faculty

H. S. Chavhan
HOD

Sr. Lecture, CSE