

COURSE TITLE	CLOUD ARCHITECTURE
COURSE CODE	01CT0828
COURSE CREDITS	3

Objective:

- 1 The Objective of this course is to give students an understanding of cloud architecture and its security issues.

Course Outcomes: After completion of this course, student will be able to:

- 1 Make architectural decisions based on AWS architectural principles and best practices.
- 2 Use AWS services to make infrastructure scalable, reliable, and highly available.
- 3 Use AWS managed services to enable greater flexibility and resiliency in an infrastructure.
- 4 Increase performance and reduce cost of a cloud infrastructure built on AWS.
- 5 Use the AWS Well-Architected Framework to improve architectures that use AWS solutions.

Pre-requisite of course:Basic Knowledge of Cloud Computing

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
3	0	0	50	30	20	25	25

Contents : Unit	Topics	Contact Hours
1	Module Welcome to AWS Academy Cloud Architecting, Introducing Cloud Architecting, Define cloud architecture, Define how to design and evaluate architectures using the AWS Well-Architected Framework, Adding a Storage Layer, Recognize the various Amazon S3 storage classes and cost Considerations, Adding a Compute Layer, Adding a Database Layer, Creating a Networking Environment, Connecting Networks, Securing User and Application Access, Implementing Elasticity, High Availability, and Monitoring, Automating Your Architecture, Caching Content, Building Decoupled Architectures, Building Microservices and Serverless Architectures, Planning for Disaster.	42
Total Hours		42

Textbook :

- 1 Cloud Computing Bible, Barrie Sosinsky, . John Wiley & Sons, 2011

References:

- 1 Amazon Web Services in Action, Amazon Web Services in Action, Michael Wittig and Andreas Wittig, , Dreamtech Press, 2018

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking / Creative
10.00	20.00	30.00	40.00	0.00	0.00

Instructional Method:

- 1 Students may use supplementary resources such as online videos, NPTEL videos, e-courses, Virtual Laboratory, etc.

Supplementary Resources:

- 1 MOOC Course, NPTEL, COURSERA, Udemy, Infosys, Springboot, SWYAM etc. Online learning platform