

Course Description:

In recent years, Cloud computing has become most needed technology for IT industry. The cloud computing has evolving rapidly due to its various features like cost effective and on demand service providing to the clients. Generally, Cloud service provider offers platform, software and infrastructure as service to the end user. The term cloud computing is simply the use of computing resources delivered over a network (typically the Internet).

This course is designed to introduce the concepts of Cloud Computing as a new computing paradigm. The students will have an opportunity to explore the Cloud Computing various terminology, concepts, principles and applications. This course provides a hands-on comprehensive study of Cloud concepts and capabilities across the various Cloud service models including Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). A variety of real case studies and existing in market cloud- based tools will be identified and studied in order to provide students with a close overview to Cloud Computing applications.

Course Objectives:

The main objectives of this course are:

- To provide students with the fundamentals and essentials concepts, principles and terminology of Cloud Computing.
- To provide students a sound foundation of the Cloud computing so that they are able to start using and adopting Cloud Computing services and tools in their real life scenarios.
- Identify the architecture and infrastructure of cloud computing including IaaS, PaaS, and SaaS.
- To understand the core issued of Cloud Computing Security, Privacy, Risks.
- To Understand Cloud Computing Architecture.
- To familiarize students with cloud services and their techniques through labs and term project.
- Design and implement a novel cloud computing application as a part of their Term Project.

Text Book:

- Cloud Computing: Concepts, Technology & Architecture (The Prentice Hall Service Technology Series)

Authors: Thomas Erl, Ricardo Puttini, Zaigham Mahmood(Kindle Edition)

- Business in the **Cloud**: What Every Business Needs to Know About **Cloud Computing**
[Michael H. Hugos](#), [Derek Hultitzky](#), ISBN: 978-0-470-61623-9;

- Enterprise **Cloud Computing**: A Strategy Guide for Business and Technology Leaders
Perfect Paperback
by [Andy Mulholland](#) (Author), [Jon Pyke](#) (Author), [Peter Fingar](#);
- **Cloud**onomics, + Website: The Business Value of **Cloud Computing**, by [Joe Weinman](#)

Supplementary Materials:

1. Cloud Computing: A Practical Approach

(McGraw-Hill, Inc)

Authors: Toby Velte, Anthony Velte, Robert Elsenpeter

2. Cloud Computing Explained: Implementation Handbook for Enterprises(Kindle Edition)

Author: John Rhoton

3. Cloud Computing and SOA Convergence in Your Enterprise: A Step-by-Step Guide

(Addison-Wesley Professional)

Author: David S. Linthicum

Grading:

Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Proportion of Final Assessment
1	First exam	20
2	Second exam	15
3	Final Exam	
4	Quizzes	5
4	Assignments, Class Activity and Participations	5
5	Project , Lab and Presentations	%15