

HAILEY COLLEGE OF COMMERCE
UNIVERSITY OF THE PUNJAB, LAHORE

Course Title: Introduction to Cloud Computing

Course Code: BEC-202

Credit Hours: 03

Program: BS E-Commerce

Semester: 03

Course Description:

Nowadays cloud computing becomes popular for individuals' users as well as for the business community. It provides on-demand huge computation and storage resources which is attractive for a large number of users mainly due to pay-per-usage charging model. This course will introduce topics related to Cloud Computing and also expose students to the latest tools and technologies used in Cloud Computing.

Goals and Objectives:

The aim of this course is to provide an in-depth knowledge of Cloud Computing topics. The course would also expose students to important methods and tools used in Cloud Computing.

Related Text / Reading Material:

Suggested Books:

1. Jothy Rosenberg and Arthur Mateos; *The Cloud at Your Service*; Manning Publications. ISBN: 1935182528
2. Paul Zikopoulos and Chris Eaton; *Understanding Big Data: Analytics for Enterprise Class Hadoop and Streaming Data*; McGraw-Hill. ISBN: 0071790535
3. Kyle Banker, Peter Bakum, Shaun Verch, Douglas Garrett, and Tim Hawkins; *MongoDB in Action, Second Edition*.
4. Clinton W. Brownley; *Foundations for Analytics with Python from Non-Programmer to Hacker*.

Tentative Study Plan:

Week #	Lecture #	Topic
01	01	Introduction To Cloud Computing
	02	Introduction To Cloud Computing (Cont.)
02	03	AWS Services, EC2 hands
	04	Accessing AWS S3
03	05	Virtualization
	06	Containerization/Dockers
04	07	Scalable Web Application in The Cloud
	08	Scalable Web Application in The Cloud (Cont.)
05	09	Load Balancing AWS ELB
	10	Nginx, Ipvadm, Ldirectord
06	11	Web Application Deployment Models
	12	Introduction to Big Data
07	13	Introduction to Big Data (Cont.)
	14	Introduction to NoSQL
08	15	MongoDB and DynamoDB
	16	Revision

MidTerm		
09	17	MapReduce
	18	MapReduce (Cont.)
10	19	Fundamental concepts of Distributed Systems
	20	Fundamental concepts of Distributed Systems (Cont.)
11	21	Consistency in Distributed Systems
	22	Fault Tolerance in Distributed Systems
12	23	MongoDB
	24	Big Data Transformation Methods
13	25	Big Data Transformation Methods (Cont.)
	26	Blockchain
14	27	Practical Considerations in Cloud Computing
	28	Future of the Cloud Computing and Big Data
15, 16		Student Presentations