

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

Syllabus for Master of Business Administration, 4th Semester Functional Area Specialization: Information Technology Management Subject Name: Cloud Computing (CC) With effective from academic year 2018-19

Subject Code: 4549252

# 1. Learning Outcomes:

<b>Learning Outcome Component</b>	Learning Outcome (Student will be able to)			
Business Environment and Domain	Analyse how business processes, and workflows can			
Knowledge (BEDK)	be managed using cloud computing.			
Critical thinking, Business Analysis,	Critically evaluate the different managerial challenges			
Problem Solving and Innovative	related to implementation, migration, vendor and end			
Solutions (CBPI)	user management.			
Global Exposure and Cross-Cultural	Appraise global development in cloud computing			
Understanding (GECCU)	technologies and data science.			
Social Responsiveness and Ethics	Prioritize ethical consideration associated with data			
(SRE)	management and analysis.			
Effective Communication (EC)	Create reports to analyse the performance of cloud			
	computing.			
Leadership and Teamwork (LT)	Exercise and managing leadership position by			
	upgrading cloud computing technology.			

## **LO – PO Mapping: Correlation Levels:**

1 = Slight (Low); 2 = Moderate (Medium); 3 = Substantial (High), "-"= no correlation

Sub. Code: 4549252	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
LO1: Analyse how business processes, and workflows can be managed using cloud computing.	3	2	3	-	-	-	-	-	1
LO2: Critically evaluate the different managerial challenges related to implementation, migration, vendor and end user management.	1	2	3	3	-	3	1	1	-
LO3: Appraise global development in cloud computing technologies and data science.	1	2	1	1	3	2	1	1	1
LO4: <i>Prioritize</i> ethical consideration associated with data management and analysis.	2	-	1	2	-	1	3	1	2
LO5: <i>Create</i> reports to analyse the performance of cloud computing.	-	-	3	2	-	1	1	1	3
LO6: <i>Exercise</i> and managing leadership position by upgrading cloud computing technology.	-	-	-	2	-	3	-	-	1

2. Course Duration: The course duration is of 40 sessions of 60 minutes each.



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# 3. Course Contents:

Module	Contents	No. of	70 Marks
No:		Sessions	(External Evaluation)
I	Cloud Computing Foundation: Introduction to Cloud Computing- Basics, History, Characteristics; Move to Cloud Computing- Advantages/ Disadvantages, Technologies in Cloud Computing, Migrating into Cloud, SLA, Challenges in Cloud Computing; Types of Cloud; Working of Cloud Computing- Trends, Cloud Service Models Cloud Computing Architecture: Cloud Computing Technology — Lifecycle, Reference Model for Cloud Computing, Industry Standards; Cloud Architecture; Cloud Modelling and Design, Cloud Ecosystem, Cloud Governance Monitoring Business Processes, IT Cost Management Business Values of Cloud Business Case for implementing a Cloud	10	18
п	Virtualization: Foundation, Types, Architecture And Software, Benefits And Challenges, Virtualization In Grid and Cloud Data Storage And Cloud Computing: Enterprise Data Storage, Data Storage Management, File System, Cloud Data Stores, Grids For Data Storage Cloud Computing Services: Web Based Application, Web Based Services, Infrastructure Services, On Demand Computing	10	18
Ш	Cloud Computing and Security: Risk in Cloud Computing; Data Security in Cloud Computing; Cloud Security Services SOA And Cloud Computing: SOA Foundation; Business Process Management and Cloud	10	17
IV	Cloud Computing Tools: Tools and Technologies; Cloud Mashups; Apache Hadoop; Cloud Tools Cloud Application: Moving Application To Cloud; Microsoft Cloud Services; Google Cloud Application; Amazon Cloud Services; Other Cloud Applications Future Cloud: Future Trends; Mobile Cloud; Multimedia Cloud; Energy Aware Cloud Computing; Jungle Cloud Practical	10	17
V	<ul> <li>Assignment related to cloud computing may be given in groups or individual</li> <li>Hand-on/ lab experiment assign to students</li> <li>Relevant case studies should be discussed in class room.</li> </ul>		

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#### 4. Pedagogy:

- ICT enabled Classroom teaching
- Case study
- Practical / live assignment
- Interactive class room discussions

#### 5. Evaluation:

Students shall be evaluated on the following components:

	Internal Evaluation	(Internal Assessment- 50 Marks)			
A	Continuous Evaluation Component	30 marks			
	Class Presence & Participation	10 marks			
	• Quiz	10 marks			
В	Mid-Semester examination	(Internal Assessment-30 Marks)			
C	End –Semester Examination	(External Assessment-70 Marks)			

#### 6. Reference Books:

Sr. No.	Author	Name of the Book	Publisher	Year of Publication / Edition
1	A Srinivasan , J Suresh	Cloud Computing : A practical approach for learning and implementation	Pearson	Latest Edition
2	Anthony T Velte, Toby J Velte, Robert Elsenpeter	Cloud Computing a practical approach	McGraw- Hill	Latest Edition
3	Rajkumar Buyya, Christian Vecchiola,S.Thamarai Selvi	Mastering Cloud Computing	McGraw- Hill	Latest Edition
4	Michael Miller,	Cloud Computing - Web Based application,	Pearson	Latest Edition
5	Judith Hurwitz, Bloor Robin, Marcia Kaufman & Fern Halper	Cloud Computing for Dummies	Wiley	Latest Edition
6	David S. Linthicum, ,	Cloud Computing and SOA Convergence in Your Enterprise	Addison Wesley	Latest Edition
7	Dan Kusnetzky	Virtualization: A Manager's Guide	O'Reilly	Latest Edition
8	Barrie Sosinsky	Cloud Computing Bible	Wiley	Latest Edition

### 7. List of Journals / Periodicals / Magazines / Newspapers / Web Resources, etc.

- 1. International journal of cloud computing
- 2. Journal of cloud computing
- 3. IEEE cloud computing journals
- 4. Journal of cloud computing IBIMA
- 5. International journal of cloud computing and services science
- 6. International journal of cloud computing and security
- 7. International journal of cloud computing and data science