



Course: BTech

Semester: 5

**Prerequisite:** Basic understanding of computer concepts and basic programming**Rationale:** This course provides a broad introduction to Azure cloud , infrastructure , services, security and compliance ,also billing , pricing and support plans.**Teaching and Examination Scheme**

Teaching Scheme					Examination Scheme					Total
Lecture Hrs/Week	Tutorial Hrs/Week	Lab Hrs/Week	Hrs/Week	Credit	Internal Marks			External Marks		
					T	CE	P	T	P	
2	0	0	0	2	20	20	-	60	-	100

SEE - Semester End Examination, CIA - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)

**Course Content**

W - Weightage (%) , T - Teaching hours

Sr.	Topics	W	T
1	<b>Cloud Concepts:</b> Understanding cloud computing principles, such as the different types of cloud models (public, private, hybrid), infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), and software-as-a-service (SaaS).	15	6
2	<b>Azure Services:</b> Familiarity with the various Azure services and their common use cases. This includes services like Azure Virtual Machines, Azure App Services, Azure Storage, Azure Functions, Azure SQL Database, and more	20	7
3	<b>Security, Privacy, Compliance, and Trust:</b> Knowledge of Azure security features, identity and access management, Azure Active Directory, data protection, compliance frameworks, and Azure governance methodologies.	25	5
4	<b>Azure Pricing and Support:</b> Understanding Azure subscription options, cost management, pricing models, and the different support options available to Azure customers	15	5
5	<b>Azure SLA and Service Lifecycles:</b> Familiarity with Azure Service Level Agreements (SLAs) and the Azure service lifecycle, including planned maintenance, updates, and deprecation policies.	25	7

**Reference Books**

1.	Microsoft Azure Fundamentals: Understanding Azure" by Michael Collier and Robin Shahan - 3rd Edition (TextBook)
2.	Azure for Architects: Implementing cloud design, DevOps, containers, IoT, and serverless solutions on your public cloud" by Ritesh Modi - 2nd Edition
3.	Exam Ref AZ-900 Microsoft Azure Fundamentals" by Jim Cheshire - 2nd Edition



## Course Outcome

**After Learning the Course the students shall be able to:**

1. Describe cloud computing fundamentals, including different cloud models and service types, and become familiar with key Azure services and their typical uses.
2. Apply Azure security, privacy, compliance, and trust measures, covering identity management, data protection, compliance frameworks, and governance.
3. Apply Azure subscription management, cost optimization, pricing models, and support options for efficient utilization of Azure resources.
4. Explain Azure SLAs and service life cycles, including maintenance, updates, and deprecation policies, ensuring reliability and availability of Azure services.

## Miscellaneous

### Exam Requirement

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc