



**SHARDA**  
UNIVERSITY  
*Beyond Boundaries*



**SHARDA SCHOOL OF  
ENGINEERING &  
TECHNOLOGY**



COURSE

# Cloud Management Using Microsoft Azure

(VAT113)

**VALUE ADDED**  
COURSE BROCHURE-30 HRS  
2024-25

## **ABOUT THE UNIVERSITY**

Sharda University is a leading Educational institution based out of Greater Noida, Delhi NCR. A venture of the renowned Sharda Group of Institutions (SGI), The University has established itself as a high quality education provider with prime focus on holistic learning and imbibing competitive abilities in students.

## **ABOUT SCHOOL**

Sharda School of Engineering and technology is an open platform for diverse voices where teaching runs parallel to the real world and students are groomed to join the global workforce. SSET is distinguished as one of the top-ranked engineering schools in India. The students at SSET benefit through the professional grooming of renowned faculty and industry experts having experience of tackling pressing engineering problems. Students discover their passion in one of the various offered Engineering majors at the School of Engineering and technology.

## **ABOUT DEPARTMENT**

The Department of Computer Science and Applications strives to equip faculty and students with all the computing resources needed to address a wide range of scientific, technological, and socially complex problems. The department imparts technical education for designing quirky technological applications and innovations. The department grails to become a center of excellence and impart knowledge to intellectual professionals so as to equip them with the requisite skills as per Industry standards. The department aims to foster an innovative research environment by providing a supportive, amiable, and challenge-based learning culture. The department utilizes high-performance computing equipment and facilities to impart state-of-the-art technical knowledge to students and instill a desire to pursue lifelong learning. To emerge as a world-class department, we focus on innovative research and quality learning in computer science applications that prepares entrepreneurs and professionals to lead the social, economic, and technical development of society. The department enjoys the full patronage of the Chancellor, Vice-Chancellor, Pro-Vice-Chancellor, and the director of the School of Engineering (SET) where it is housed presently.

## **VALUE ADDED COURSE (VAC)**

The Value added Education Courses aim to provide additional learner centric graded skill oriented training, with the primary objective of improving the employability skills of students.

## PURPOSE OF VALUE ADDED COURSE

VACs are pertinent instructional strategies designed to close knowledge gaps in students and provide them a competitive edge in the Job market. The courses' well-defined offspring VACs make them incredibly helpful for enhancing students' employability quotient by developing a variety of competencies. It aids students' in laying the creative groundwork for a passion project.(computers project, quantitative analytics,etc) aside from their occupation courses offering characteristics that can assist in transforming their enthusiasm into occupation. The course will cover the fundamentals of problem visualization from the standpoint of queue management in scenarios related to industrial or facility management. Course will provide basic approach of visualization of problem from Game theory perspective from industrial or facility management scenario.

## RESOURCE PERSON

**Ms. Barkha Nandwana** is pursuing Ph.D. in Computer Science and Technology from Netaji Subhas University of Technology, New Delhi, India. She has obtained her M.Tech. (Computer Science and Engineering) and B.Tech. (Information Technology) in 2018 and 2013 respectively. She has worked as an Assistant Professor(Guest Faculty) in the Department of Computer Science & Technology, Netaji Subhas University of Technology, New Delhi from Jan 2020 to Dec 2023.She is currently working as an Assistant Professor in the Department of Computer Science and Application of Sharda School of Engineering & Technology, Sharda University, Greater Noida, India. She has more than 7 years of teaching, administrative experience.

## COURSE SCHEDULE

Unit	Content	Duration
1	Basics of Azure	2 h
2	Azure Services – Azure Portals – Preview Portal	2 h
3	Virtual Machine(VM) Basics	2 h
4	Azure Files	2 h
5	Managing Azure Storage	2 h
6	Resizing Azure Disks	2 h
7	Virtual Networks –Address Spaces	2 h
8	Creating and Using Virtual Network	2 h
9	Load Balancer basics	2 h
10	Introduction to Active Directory(AD)	2 h
11	Identity and Authentication in Public Cloud	2 h
12	Reporting and Monitoring Azure AD	2 h
13	SQL Azure: Creating a SQL Server	2 h
14	Creating Tables	2 h
15	Creating a Website	2 h
<b>Total</b>		<b>30 h</b>

**Data Analytics Using AWS** Course Coverage (Total Hours: 30)

School: SSET		Batch : 2022-25	
Program: B.Tech IT		Current Academic Year: 2024-25	
Branch:		Semester: III	
1. Course Code	VAT113		
2. Course Title	Cloud Management Using Microsoft Azure		
3. Credits	0		
4. Contact Hours (L-T-P)	30 Hours		
Course Type	Value added course		
5. Course Objective	Students should be able to learn about analytics techniques to handle the data analytics using Azure framework		
6. Course Outcomes	CO1:Understanding of usage of cloud. CO2:Understanding of Windows Azure services. CO3:Understanding of network service CO4: Examine and uses Tools to manage Azure services CO5: Understanding App service. CO6: Identify and apply tools and Programming with windows azure is also covered in depth.		
7. Course Description	Azure is Microsoft's cloud platform, just like Google has its Google Cloud and Amazon has its Amazon Web Service. Generally, it is a platform through which we can use Microsoft's resource. This course is going to provide hands on practice and insight into Azure cloud based service for developing robust application at cloud level with dynamic approach		
8. Outline syllabus		CO Mapping	
<b>Unit 1</b>	<b>Introduction to cloud</b>	CO1	
A	Basics of Azure	CO1	
B	Azure Services – Azure Portals – Preview Portal	CO1	
C	Virtual Machine(VM) Basics	CO1, CO2	
<b>Unit 2</b>	<b>Storage Basics</b>		
A	Azure Storage Offerings	CO2, CO3	
B	Azure Files – Managing Azure Storage	CO2, CO3	
C	Resizing Azure Disks	CO2, CO3	
<b>Unit 3</b>	<b>Virtual Networks</b>		
A	Address Spaces	CO3	
B	Creating and Using Virtual Network	CO3	
C	Load Balancer basics	CO1, CO3	
<b>Unit 4</b>	<b>Active Directory</b>		
A	Introduction to Active Directory(AD)	CO1, CO2 CO4	
B	Identity and Authentication in Public Cloud	CO4	
C	Reporting and Monitoring Azure AD	CO4, CO5	
<b>Unit 5</b>	<b>SQL in cloud</b>		
A	SQL Azure: Creating a SQL Server	CO1, CO6	
B	Creating Tables	CO5, CO6	
C	Creating a Website	CO6	
Mode of examination	Jury/Practical/Viva		
Text Books	References 1. CLOUD COMPUTING Principles and Paradigms, Edited by Rajkumar Buyya, Jam 2. Cloud Computing: A Practical Approach, Anthony T. Velte, Toby J. Velte, Robert Elsenpeter		
Reference Books	Amazon SageMaker, Developer Guide, <a href="https://docs.aws.amazon.com/sagemaker/latest/dg/sagemaker-dg.pdf#gs">https://docs.aws.amazon.com/sagemaker/latest/dg/sagemaker-dg.pdf#gs</a>		
Online Materials	<a href="https://aws.amazon.com/getting-started/hands-on/build-train-deploy-machine-learning-model-sagemaker/">https://aws.amazon.com/getting-started/hands-on/build-train-deploy-machine-learning-model-sagemaker/</a> <a href="https://aws.amazon.com/machine-learning/">https://aws.amazon.com/machine-learning/</a>		