Ahmednagar Jilha Maratha Vidya Prasarak Samaj's

New Arts, Commerce, and Science College Ahmednagar (Autonomous)

(Affiliated to Savitribai Phule Pune University, Pune)

National Education Policy (NEP)
Choice Based Credit System (CBCS)

Programme Framework and Syllabus for

Skill Enhancement Courses: B.Sc. Cloud Computing

कौशल्य वृद्धी अभ्यासक्रम: B.Sc. Cloud Computing

Implemented from

Academic Year 2024-25

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's
New Arts, Commerce and Science College, Ahmednagar (Autonomous)

Introduction of Skill Enhancement Courses: B.Sc. Cloud Computing

Cloud Computing can be defined as the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer. Companies offering such kinds of cloud computing services are called cloud providers and typically charge for cloud computing services based on usage. Grids and clusters are the foundations for cloud computing. Most cloud computing services fall into five broad categories:

1. Software as a service (SaaS)
2. Platform as a service (PaaS)
3. Infrastructure as a service (IaaS)
4. Anything/Everything as a service (XaaS)
5. Function as a Service (FaaS)

In the semester II of First Year, Saas service is introduced. SaaS is the most popular cloud-based service among three types – SaaS, PaaS, and IaaS.

A software-as-a-service (SaaS) model hosts applications on a cloud server and distributes them to users via the internet. Using this model, an independent software vendor (ISV) can host their application on a third-party cloud provider. Cloud providers can also be software vendors with larger companies like Microsoft.

Typically, SaaS customers pay a monthly subscription fee to access the application. Subscriptions vary depending on the amount of data to be stored, the level of technical support needed, or the number of users.In this semester syllabus focus on on example of SaaS , Microsoft 365.

In the semester III of Second Year,IaaS Service is introduced. Cloud infrastructure services, known as infrastructure as a service (IaaS), is made of highly scalable and automated compute resources. IaaS is fully self-service for accessing and monitoring computers, networking, storage, and other services. IaaS allows businesses to purchase resources on demand and as needed instead of having to buy hardware outright. Syllabus will cover any one application of IaaS like s3 or EC2

In semester IV of Second Year,the next service type is introduced, PaaS. Platform as a Service (PaaS) is a complete cloud environment that includes everything developers need to build, run, and manage applications—from servers and operating systems to all the networking, storage, middleware, tools, and more.

Skill Enhancement Courses: Framework and Course Distribution:
Subject: B.Sc. Cloud Computing

Sr. No.	Year	Semester	Level	Course Type	Course Code	Title	Credits
1.	I	II	5.0	SEC-01	SEC-BS-CC 01P	Cloud Services-I	02
2.	II	III	5.5	SEC-02	SEC- BS-CC 02P	Cloud Services-II	02
3.	II	IV	6.0	SEC-03	SEC- BS-CC 03P	Cloud Services-III	02
						Total	06

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Skill Enhancement Courses: Cloud Computing

Title of the Course: Cloud Services-I								
Year: I				Semester: II				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
SEC-01	SEC-BS-CC 01P	00	02	02	30	15	35	50

Learning Objectives:

1. Define SaaS and differentiate it from other cloud service models (IaaS, PaaS)
2. Describe the architecture of SaaS applications, including frontend, backend, and data layers.
3. Define Microsoft 365 (formerly Office 365) and its components, including productivity applications (Word, Excel, PowerPoint), collaboration tools (Teams, SharePoint), and communication tools (Outlook, Exchange).
4. Explain the key services provided by Microsoft 365, such as cloud storage (OneDrive), enterprise mobility (Intune), and security features (Advanced Threat Protection).
5. Demonstrate proficiency in using Microsoft Word, Excel, PowerPoint, and other productivity apps for creating, editing, and sharing documents.

Course Outcomes (Cos) : Upon completion of the course, the students will be able to:

1. Critically assess different SaaS offerings based on their architectural design, scalability, and security features.
2. Create and manage documents, spreadsheets, presentations, and emails using Microsoft 365 applications.
3. Collaborate effectively within teams using Microsoft Teams, SharePoint, and other collaboration tools in Microsoft 365.
4. Perform basic administrative tasks
 Detailed Syllabus:

UNIT I : Introduction

1.1 What is a SaaS?
1.2 What are the Benefits of SaaS?
1.3 Popular Examples of SaaS Applications

UNIT II:Introduction to Microsoft 365
 2.1 Create and Manage Documents
 Create a Document, Create a blank document, Create a blank document using a template
 Open a PDF in Word for editing, Insert text from a file or external source
2.2 Navigate Through a Document
 Insert hyperlinks, Search for text, Create bookmarks, Move to a specific location or object in a document

2.3 Format a Document

Modify page setup, Apply document themes, Apply document style sets, Insert headers and footers, Insert page numbers, Format page background elements

2.4. Customize Options and Views for Documents

Change document views, Customize views by using zoom settings, Customize the Quick Access toolbar, Add document properties, Show or hide formatting symbols

2.5. Print and save documents

Inspect a document for hidden properties or personal information, Inspect a document for accessibility issues, Inspect a document for compatibility issues

UNIT III: Format Text, Paragraphs, and Sections

3.1. Insert Text and Paragraphs
• Find and replace text
• Cut, copy and paste text
• Replace text by using AutoCorrect
• Insert special characters

3.2. Format Text and Paragraphs
• Apply font formatting
• Apply formatting by using Format Painter
• Set line and paragraph spacing and indentation
• Clear formatting
• Apply a text highlight color to text selections
• Apply built-in styles to text
• Change text to WordArt

3.3. Order and Group Text and Paragraphs
• Format text in multiple columns
• Insert page, section, or column breaks
• Change page setup options for a section

UNIT IV: Create Tables and Lists

4.1. Create a Table
• Convert text to tables
• Convert tables to text
• Create a table by specifying rows and columns
• Apply table styles

4.2. Modify a Table
• Sort table data
• Configure cell margins and spacing
• Merge and split cells
• Resize tables, rows, and columns
• Split tables
• Configure a repeating row header

4.3. Create and Modify a List
• Create a numbered or bulleted list
• Change bullet characters or number formats for a list level
• Define a custom bullet character or number format
• Increase or decrease list levels
• Restart or continue list numbering
• Set starting number value

UNIT V: Create and Manage References

5.1. Create and Manage Reference Markers
• Insert footnotes and endnotes

• Modify footnote and endnote properties
• Create bibliography citation sources
• Modify bibliography citation sources
• Insert citations for bibliographies
• Insert figure and table captions
• Modify caption properties
5.2. Create and Manage Simple References
• Insert a standard table of contents
• Update a table of contents
• Insert a cover page

UNIT VI: Insert and Format Graphic Element
6.1. Insert Graphic Elements
• Insert shapes
• Insert pictures
• Insert a screen shot or screen clipping
• Insert text boxes
6.2. Format Graphic Elements
• Apply artistic effects
• Apply picture effects
• Remove picture backgrounds
• Format objects
• Apply a picture style
• Wrap text around objects
• Position objects
• Add alternative text to objects for accessibility
6.3. Insert and Format SmartArt Graphics
• Create a SmartArt graphic
• Format a SmartArt graphic
• Modify SmartArt graphic content

UNIT VII. Manage document options and settings
7.1. Manage Documents and Templates
• Manage document versions
• Compare and combine multiple documents
• Link to external document content
• Enable macros in a document
• Display hidden ribbon tabs
• Change the application default font
7.2. Prepare Documents for Review
• Restrict editing
• Mark a document as final
• Protect a document with a password
7.3. Manage Document Changes
• Track changes
• Manage tracked changes
• Lock or unlock tracking
• Add comments
• Manage comments

UNIT VIII. Design advanced documents
8.1. Perform Advanced Editing and Formatting
• Find and replace formatting and styles
• Set advanced page setup layout options

• Link text boxes
• paragraph pagination options
• Resolve style conflicts by using Paste Options
8.2. Create Styles
• Create paragraph and character styles
• Modify existing styles
8.3. Create and Manage Indexes
• Mark index entries
• Create indexes
• Update indexes
8.4. Create and Manage References
• Customize a table of contents
• Insert and modify captions
• Create and modify a table of figures
8.5. Manage Forms, Fields, and Mail Merge Operations
• Add custom fields
• Modify field properties
• Perform mail merges
• Manage recipient lists
• Insert merged fields
• Preview merge results

Suggested Readings/Material:

1. Microsoft Office 365 For Beginners: The 1# Crash Course From Beginners To Advanced. Easy Way to Master The Whole Suite in no Time Excel, Word, PowerPoint, OneNote, OneDrive, Outlook, Teams & Access by Leonard J Ledger
2. LEARN TO MASTER MICROSOFT OFFICE 2016/365: 4 Color Book by scriptDemics
3. Microsoft Office 365 All-in-One For Dummies, 2ed by Peter Weverka; Matt Wade