

Course Code	Course Title	L	T	P	C
BMEE355E	Cloud Computing	1	0	4	3
Pre-requisite	NIL	Syllabus version			
		2.0			
Course Objectives					
1. Develop a Strong Foundation in Cloud Computing Concepts 2. Master Salesforce Administration and Configuration 3. Leverage Salesforce for Engineering Applications					
Course Outcomes					
The students will be able to 1. Apply Concept of Cloud Computing and Salesforce 2. Navigate the core functionalities of Salesforce CRM 3. Utilize essential Salesforce components 4. Implement data security and management strategies 5. Employ data visualization strategies 6. Customize the user experience in App generation using Salesforce Lightning App Builder					
Module:1	Introduction to Cloud Computing/ Salesforce	2 hours			
Cloud, Cloud Computing, Types of Clouds, Services of Cloud (IaaS, PaaS, SaaS), Advantages of Cloud, Service Providers, Advantages of Salesforce.com over other Service Providers, Certification (Career Paths & Opportunities), Basic in Salesforce (Architecture).					
Module:2	CRM Overview in Salesforce	2 hours			
Understanding the Sales Process, CRM, Significance of CRM, Evolution of CRM, Objects in CRM (Campaign, Lead, Account, Opportunity etc..), Overview of CRM Functionality, characters in salesforce, Salesforce.com & Force.com, Different Environment, Types of Editions (Enterprise, Professional, unlimited, Group etc).					
Module:3	Components of Salesforce	1 hours			
Starting SFDC Application, Creation of Salesforce Account, PROD vs TEST, Creation of Apps, Object, Field and record, Different Relationships (Lookup, Master-Detail, Roll-Up Summary & Many To Many).					
Module:4	Date Security, Sharing, and Data Migration Tools	2 hours			
Basics of Data Security, Level of Security (Org, Object, Field and Record level), Profile & Role, Profiles and Permission Set, Data Loader (Insert, Update, Upsert, Export, Export All), identity, DataLoader.io, Force.com IDE, Working with Workbench, Working with Import Wizard, Working With Process Builder.					
Module:5	Reports and Dashboards	2 hours			
Introducing Reports, Build a Report, Run and Then Read a Report, Share a Report, Report Limits etc, Working with Different Types of Report, Summary Report, Tabular Report, Joined Report and Matrix, Report, Introducing Dashboards Component Types (Chart, Gauge, Metric, Table), Dynamics Dashboards, Introducing Custom Report Types.					
Module:6	Validation and Workflow rules	2 hours			

Business Logic Implementation, Rules for Automation, Validation Rule (Run on highest priority for the App), Workflow (Time-Dependent & Time-Independent), Assignment Rule, Auto-Response Rule (Web-to-Lead functionality) Escalation Rule, Introduction and use of Record Type, Introduction and use of Different Page-Layouts using Record-Type.		
Module:7	App generation using Salesforce	3 hours
Get Started with the Lightning App Builder, Build a Custom Home Page for Lightning Experience, Build a Custom Record Page for Lightning, Experience and Salesforce Mobile App, Build an App Home Lightning Page, Work with Custom Lightning Components.		
Module:8	Contemporary Issues	1 hours
Guest lectures from Industry on advance topics related to salesforce.		
Total Lecture hours:		15 hours
Text Book(s)		
1.	Saifullah Saifi and Ashwini Kumar Raj, "Cloud Computing Using Salesforce", 2021 BPB.	
2.	Michael Wicherski, "Beginning Salesforce Developer", 2018, Wiley Apress Publisher.	
Reference Books		
1.	Brian Cline, "Lightning Web Components (LWC) Development on the Salesforce Platform: A Salesforce developer's guide to building, testing, and deploying Lightning Web Components", 2023, PACKT Publisher.	
Mode of Evaluation: No separate evaluation for theory component.		
Indicative Experiments		
1.	Exercise on Salesforce Exploration and CRM	
2.	Exercise on creation custom Salesforce components	
3.	Exercise on data Management & Automation	
4.	Exercise on data Security at different levels	
5.	Exercise on data Security using Profiles and Permission Sets	
6.	Exercise on reporting & analytics using Salesforce Reports	
7.	Exercise on data visualizations using Salesforce Dashboard	
8.	Exercise on workflow automation	
9.	Exercise on validation & workflow Rules	
10.	Exercise on Customization with Lightning	
Total Laboratory Hours		60 hours
Text Book(s)		
1.	Paul Goodey, "Salesforce CRM - The Definitive Admin Handbook", 2019, Packt Publishing	
Reference Books and E Resources		
1.	Paul Goodey, Fabrice Cathala, "Salesforce CRM Admin Cookbook", 2017, Packt Publishing,	
2.	Use the Trailhead Platform: https://www.salesforce.com/blog/what-is-trailhead/	

3.	The Salesforce Developer Trailmix : https://trailhead.salesforce.com/users/trjha3/trailmixes/salesforce-developer-catalyst-v-3-0		
Mode of assessment: Continuous assessment and FAT			
Recommended by Board of Studies		28-02-2025	
Approved by Academic Council		No. 77	Date 13-03-2025