

**SRM UNIVERSITY**  
**FACULTY OF ENGINEERING AND TECHNOLOGY**

**DEPARTMENT OF TCE**

**Course Code** : TE1203  
**Course Title** : Telecom Billing  
**Year** : III & IV  
**Semester** : V & VII  
**Location** : Tech Park 13<sup>th</sup> floor

**Faculty Details:**

Name of the staff	Venue	Office	Mail ID
Mr. K. Vijayan	Main Block	13 <sup>th</sup> floor Tech Park	Vijayan.k@ktr.srmuniv.ac.in
Ms.S.Murugaveni	Annexure Block	13 <sup>th</sup> floor Tech Park	Murugaveni.s@ktr.srmuniv.ac.in

**TEXT BOOKS**

1. Bell.A.T, "Telecommunication Billing", Published by Virtualbookworm.com, July 2005.
2. Nolan Vincent Jones "Telecommunications Management", Published by Virtualbookworm.com, August 2004.

**Objectives:**

1. To Understand the Telecom Billing Architecture
2. To know about various Tariff and Bill structure
3. Understand the concepts involved in Billing Process
4. To Gain knowledge on Payment Procedures

**Assessment details**

Cycle test -1	: 10Marks	Surprise test	: 5 Marks
Cycle test- II	: 10Marks	Attendance	: 5 Marks
Model Exam	: 20 Marks		

**Test Schedule**

S.No	TEST	DURATION
1	Cycle Test - I	2 Periods
2	Cycle Test - II	2 Periods
3	Model Exam	3 Hrs

**Outcomes**

At the end of this course the student will be able to understand the

1. Various Billing architecture
2. Concepts involved in billing process
3. Telecom management

## Detailed Session Plan

### BILLING INTRODUCTION

**Indian Telecom Service Providers, TRAI, Telecom Billing Instruction, Billing System, Telecom Billing System Architecture, Billing System Requirement, Telecom Billing Products and Services, Tariff Planning & Classification, Portable & Non Portable charges, Refundable & Non Refundable Charges, Charge Overriding.**

Session No.	Topics to be covered	Time	Ref	Teaching Method	Testing Method
1	Indian telecom service providers	50	Bell.A.T	BB	self test
2	TRAI and Telecom billing instruction	50	Bell.A.T	BB	self test
3	Billing system and telecom billing system	50	Bell.A.T	BB	self test
4	Telecom billing system architecture	50	Bell.A.T	BB	self test
5	Billing system requirement Telecom billing products and services	50	Bell.A.T	BB	self test
6	Tariff planning and classification	50	Bell.A.T	BB	self-test
7	Portable and non-portable charges	50	Bell.A.T	BB	self-test
8	Refundable and Non Refundable charges	50	Bell.A.T	BB	self-test
9	Charge overriding	50	Bell.A.T	BB	self-test

### CUSTOMER DETAILS AND CDR

**Telecom Billing Customer Acquisition, Customer Acquisition Process, Customer Life Cycle, Customer Types, Telecom Billing Usage Capturing, CDR, CDR Attributes & Processing, Telecom Billing Rating Process, Duplicate and Rejected Event, Rerating and Partial Event, analysis of Real Time Bill Formats**

Session No.	Topics to be covered	Time	Ref	Teaching Method	Testing Method
10	Telecom billing customer acquisition	50	Bell.A.T	BB	self test
11	Customer acquisition process and customer life cycle	50	Bell.A.T	BB	self test
12	Customer types	50	Bell.A.T	BB	self test
13	Telecom billing usage	50	Bell.A.T	BB	self test

	capturing				
14	CDR and CDR attributes & Processing	50	Bell.A.T	BB	self test
15	Telecom billing rating process	50	Bell.A.T	BB	self test
16	Duplicate and rejected event	50	Bell.A.T	BB	self test
17	Rerating and Partial event	50	Bell.A.T	BB	self test
18	Analysis of reat time bill formats	50	Bell.A.T	BB	self test

### **BILLING PROCESS AND DISCOUNTS**

**Telecom Billing Process, Bill Cycle and Types, Billing Mode and Bill Suppression, Exceptional Bills, Bill Itemization and Formatting. Telecom Billing Discount Application, Discount Steps & Thresholds, Discount Types, Discount Period & Proration, Bonus Schemes, Telecom Billing Invoice Generation.**

Session No.	Topics to be covered	Time	Ref	Teaching Method	Testing Method
19	Telecom Billing Process, Bill Cycle and Types	50	Bell.A.T	BB	self test
20	Billing Mode and Bill Suppression, Exceptional Bills	50	Bell.A.T	BB	self test
21	Exceptional Bills	50	Bell.A.T	BB	self test
22	Bill Itemization and Formatting	50	Bell.A.T	BB	self test
23	Telecom Billing Discount application	50	Bell.A.T	BB	self test
24	Discount steps and Thresholds Discount types	50	Bell.A.T	BB	self test
25	Discount Period and proration	50	Bell.A.T	BB	self test
26	Bonus Schemes	50	Bell.A.T	BB	self test
27	Telecom billing invoice generation	50	Bell.A.T	BB	self test

### **PAYMENT PROCEDURES**

**Telecom Billing Collection Process, Collection Action Schedule , Soft Collection Actions, Hard Collection Actions, Telecom Billing Payment Processing, Payment Methods, Automatic Payments, Manual Payment, Payment Interfaces, Telecom Billing Disputes & Adjustment, Processing of Disputes, Review of Indian Service Provider Tariffs**

Session No.	Topics to be covered	Time	Ref	Teaching Method	Testing Method
28	Telecom billing collection process	50	Nolan Vincent Jones	BB	self test
29	Collection action	50	Nolan	BB	self test

	schedule		Vincent Jones		
30	Soft collection actions Hard collection actions	50	Nolan Vincent Jones	BB	self test
31	Telecom billing payment processing	50	Nolan Vincent Jones	BB	self test
32	Payment methods Automatic payments Manual payment	50	Nolan Vincent Jones	BB	self test
33	Payment interfaces	50	Nolan Vincent Jones	BB	self test
34	Telecom billing disputes and adjustment	50	Nolan Vincent Jones	BB	self test
35	Processing of disputes	50	Nolan Vincent Jones	BB	self test
36	Review of Indian service provider tariffs	50	Nolan Vincent Jones	BB	self test

## REPORT GENERATION AND INTERFACE MODULES

**Telecom Billing Report Generation, Postpaid & Prepaid Scenario, Retail Vs Wholesale Billing, Telecom Roaming Billing, Telecom Billing Support & Maintenance, Support and Service Level Agreement, CRM/OMOF System, Provisioning and Network Inventory System, Network Switches, Mediation and Data Warehouse System, Enterprise Resource Planning, Payment Gateway, Telecom Billing Major System**

Session No.	Topics to be covered	Time	Ref	Teaching Method	Testing Method
37	Telecom bill report generation	50	Nolan Vincent Jones	BB	self test
38	Postpaid and prepaid scenario	50	Nolan Vincent Jones	BB	self test
39	Retail Vs wholesale billing Telecom roaming billing	50	Nolan Vincent Jones	BB	self test
40	Telecom billing support and maintenance, support and service level agreement CRM/OMOF	50	Nolan Vincent Jones	BB	self test

	system				
41	Provisioning and network inventory system	50	Nolan Vincent Jones	BB	self test
42	Network switches	50	Nolan Vincent Jones	BB	self test
43	Mediation and Data warehouse system	50	Nolan Vincent Jones	BB	self test
44	ERP and payment gateway	50	Nolan Vincent Jones	BB	self test
45	Telecom billing major system	50	Nolan Vincent Jones	BB	self test