PROGRAMME:
MBA Banking Technology Inter-disciplinary Programme between Computer Science & Engineering and Management sanctioned by UGC under Inter-disciplinary and Innovative Fundamental Schemes.

DURATION:
Two Years (Four Semesters including a Winter Project, Summer Bank Internship for two Months and Final Project for two Months in a specialized Elective Stream)

INTAKE:
72 students (+ 5 Industry Sponsored)

ELIGIBILITY:
Under Graduates with 55% marks in one of the following degrees or equivalent.
- BE/B.Tech (CSE/IT/ECE/EEE/E&I)
- BSc-CSE/IT
- BCA/B.Com Computer Applications/MCA
- Any other degree with University Recognized PGDCA

SELECTION CRITERIA:
All India Admission Test along with Group Discussion and Personal Interview for short listed candidates.

ACADEMIC PROGRAMME:
CBCS Mode, Hard Core and Soft Core: Total credits may range from 90 – 110 Credits.
Pedagogy Consists of Class Room Teaching, Problem Solving, Computer Lab Practicals, Case Study Discussions, Industry Visits, Industry Mini-Projects, Assignments, Participation in Conventions of Professional Bodies, Role Plays, Internships in Banks, Project Work Reports and Development of Hardware Devices and Software Packages.

EVALUATION:
Internal Assessment – 40% of Marks, External evaluation – 60% of Marks. Internals assessments consist of Term Tests, Written Assignments / Field study Reports, Seminar Presentations in every Paper. End Semester Exam consists of 3 hours written test with 3 sections A, B and C. Section C will be a Case Study.
Evaluation of Lab subjects consists of 1 hour written test, 1 hour Programming / Data analysis followed by a Viva with External Examination and the Practical Record.

Winter, Summer and Final Project works are guided by Faculty Members and evaluated by two External Examiners and a Viva is conducted for every Candidate by External Examiners.

The Final Project is divided into Phase I and Phase II Components. Phase I consists of an exhaustive review of 20 papers, and a Test on course work. Phase II consists of a Survey / Industry internship, Software development, Data Analysis, development of a model and the preparation of a Project Report adapting approved Research Methodology or Software Project developer’s methodology.

Every Semester ends with a Comprehensive Viva Examination which will be conducted by two external experts (1 from Academic and 1 from industry) An Objective Type Test on different concepts from all subjects will proceed the viva. Viva focuses on students ability to integrate theoretical knowledge to practical issues of a Business situations.

Students are expected to participate compulsorily in local Industrial Visits or field study assignments in every semester. Fifteen day winter Project is to be conducted in a manufacturing company with a focus to learn different functional aspects of management. Students may also take up studies to document successful entrepreneurship in MSME sector.

The Banking Internship is to be carried out for two months during summer vacation in a bank branch. Attendance is compulsory and a work dairy is to be maintained. A report is to be summated on different bank operations listed in the syllabus.

The department may conduct an annual Industry Tour to Financial Capital of our country or software development Centre’s. An annual Industry Interface Meet is to be organized for understanding the contemporary development in business. An annual Alumni Meet is to be organized to get the feedback and to develop placement contacts.

Students have to finance themselves to participate in Industry-interface activates.

Laboratory:

The department shall maintain a Computer lab with one or two Servers, licensed software for organizing computer lab practicals such as Oracle, Rational Rose, BI tools, Data bases like CMIE, BLOOMBERG, India stat, Capitoline etc. Accounting software Tally, Statistical Software SPSS, Data mining software and other generic software like Linux, Visual studio, Java, SQL Server, Turbo C++, MS-Office should be made available. Computer lab should be connected with dedicated intranet and internet and with Wi-Fi facilities for enabling students to use Laptops. All students are expected to buy a laptop and use it for both class room and lab purposes.

A Public presentation will be made on project Report before External examiners for its evaluation.
**MBA: BANKING TECHNOLOGY DEGREE PROGRAMME**

**REVISED COURSE STRUCTURE**

(2014-15 onwards)

### Non-Credit Bridge Courses:
- MBBT 301: Basics of Business  
  Hard Non Credit
- MBBT 302: Basics of Computer Programming  
  Hard Non Credit
- MBBT 303: Basics of Accounting  
  Hard Non Credit
- MBBT 304: Basics of Business Communication  
  Hard Non Credit

#### I Semester
- MBBT 411: Economics for Managers  
  Hard 3 Credits
- MBBT 412: Management Concepts  
  Hard 3 Credits
- MBBT 413: Accounting for Managerial Decision Making  
  Hard 3 Credits
- MBBT 414: Quantitative Techniques for Management  
  Hard 3 Credits
- MBBT 415: Indian Banking & Financial System  
  Hard 3 Credits
- MBBT 416: System Analysis and Design  
  Hard 3 Credits
- MBBT 417: Data Storage & Data Centre Management  
  Hard 3 Credits
- MBBT 418: Business System Analysis Lab – Using OOMD  
  Hard 2 Credits
- MBBT 419: Comprehensive Viva  
  Hard 2 Credits

#### II Semester
- MBBT 420: Winter Project  
  Hard 2 Credits
- MBBT 421: Human Resource Management  
  Hard 3 Credits
- MBBT 422: Financial Management  
  Hard 3 Credits
- MBBT 423: Marketing Management  
  Hard 3 Credits
- MBBT 424: Corporate Strategy Management  
  Hard 3 Credits
- MBBT 425: Retail Banking  
  Hard 3 Credits
- MBBT 426: Banking Technology Management  
  Hard 3 Credits
- MBBT 427: Information Security for Banks  
  Hard 3 Credits
- MBBT 428: Banking Channels and Middleware Lab  
  Hard 3 Credits
- MBBT : Elective I: Paper – 1  
  Hard 2 Credits
- MBBT : Elective II: Paper – 1  
  Soft 3 Credits
- MBBT 429: Comprehensive Viva  
  Soft 3 Credits  
  Hard 2 Credits

#### III Semester
- MBBT 510: Banking Practices Summer Internship  
  Hard 2 Credits
- MBBT 511: Bank Financial Management  
  Hard 3 Credits
- MBBT 512: Bank Marketing  
  Hard 3 Credits
- MBBT 513: Legal Aspects of Banking  
  Hard 3 Credits
- MBBT 514: Risk Management in Banks  
  Hard 3 Credits
- MBBT 515: International Banking  
  Hard 3 Credits
- MBBT 516: Data Warehousing and Applied Data Mining  
  Hard 3 Credits
- MBBT 517: IT Infrastructure Management for Banks  
  Hard 3 Credits
- MBBT 518: Business Intelligence Lab  
  Hard 2 Credits
- MBBT : Elective I: Paper – 2  
  Soft 3 Credits
- MBBT : Elective II: Paper – 2  
  Soft 3 Credits
- MBBT 519: Comprehensive Viva  
  Hard 2 Credits
IV SEMESTER
MBBT: Elective I: Paper – 3  
MBBT: Elective I: Paper – 4  
MBBT: Elective II: Paper – 3  
MBBT: Elective II: Paper – 4  
MBBT 521: Final Project & Viva  
MBBT 522: Comprehensive Viva

**ELECTIVE STREAMS**

*(Every Student should select 2 streams of electives. In each stream of elective, he/she has to take 4 Papers out of 6 papers listed.)*

**SOFTWARE ENGINEERING AND TECHNOLOGY STREAM**
MBBT 611  Agile Software Process  
MBBT 612  Design Patterns  
MBBT 613  Software Testing and Quality Assurance  
MBBT 614  Enterprise Architecture  
MBBT 615  Service Oriented Architecture  
MBBT 616  Smart Banking Technologies

**INFORMATION SECURITY STREAM**
MBBT 621  Network Security Management  
MBBT 622  Secure Electronic Payment Systems  
MBBT 623  Information Security and Risk Management  
MBBT 624  Digital Crimes and Forensics Science  
MBBT 625  IT Security Metrics  
MBBT 626  Information Security – Lab

**BIG DATA ANALYTICS AND STORAGE STREAM**
MBBT 631  Data Science and Big Data Analytics  
MBBT 632  Cloud Infrastructure and Services  
MBBT 633  Backup Recovery Systems and Architecture  
MBBT 634  Information Systems Control and Audit  
MBBT 635  Data Analytics and Social Networking  
MBBT 636  Data Visualization and Business Intelligence Reporting

**BANKING OPERATIONS STREAM**
MBBT 641  Bank Fund Management  
MBBT 642  Credit Risk Management in Banks  
MBBT 643  Banking Supervision and Control  
MBBT 644  E-Banking Issues and IT Laws  
MBBT 645  ALM and CAR Practices – Internship Lab

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<tr>
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<td>Hard 6+2 Credits</td>
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### FINANCIAL SERVICES STREAM

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<td>Financial Services Intermediaries and Regulators</td>
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<tr>
<td>MBBT 652</td>
<td>Merchant Banking Financial Services</td>
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<tr>
<td>MBBT 653</td>
<td>Management of Mutual Funds</td>
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<tr>
<td>MBBT 654</td>
<td>Electronic Financial Services</td>
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<tr>
<td>MBBT 655</td>
<td>Marketing of Financial Services</td>
<td>3</td>
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<tr>
<td>MBBT 656</td>
<td>Security Market Operations Lab - Internship</td>
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### CAPITAL MARKET STREAM

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<td>Fixed Income Securities and Treasury Management</td>
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<tr>
<td>MBBT 662</td>
<td>Security Analysis and Portfolio Management</td>
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<tr>
<td>MBBT 663</td>
<td>Financial Derivatives and Risk Management</td>
<td>3</td>
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<tr>
<td>MBBT 664</td>
<td>Asset pricing and Equity Research</td>
<td>3</td>
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<tr>
<td>MBBT 665</td>
<td>Financial Econometrics and Modeling</td>
<td>3</td>
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<td>MBBT 666</td>
<td>Investment Analytics Lab</td>
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### INTERNATIONAL FINANCE STREAM

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<tr>
<td>MBBT 671</td>
<td>Global Financial Markets &amp; Instruments</td>
<td>3</td>
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<td>MBBT 672</td>
<td>International Financial Management</td>
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<tr>
<td>MBBT 673</td>
<td>Forex and Currency Derivatives</td>
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<tr>
<td>MBBT 674</td>
<td>Foreign Trade and Documentation</td>
<td>3</td>
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<td>MBBT 675</td>
<td>Bloomberg – International Finance Lab</td>
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<tr>
<td>MBBT 676</td>
<td>CMIE Corporate Finance Lab</td>
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### MONEY AND DEVELOPMENT BANKING STREAM

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<tr>
<td>MBBT 681</td>
<td>Monetary Policy &amp; Central Banking</td>
<td>3</td>
</tr>
<tr>
<td>MBBT 682</td>
<td>Public Finance and Development Economics</td>
<td>3</td>
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<tr>
<td>MBBT 683</td>
<td>Development Banking</td>
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<tr>
<td>MBBT 684</td>
<td>Rural Banking and Micro Finance</td>
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<tr>
<td>MBBT 685</td>
<td>Corporate Governance and Ethics in Banks</td>
<td>3</td>
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<tr>
<td>MBBT 686</td>
<td>Entrepreneurship and New Ventures - Internship</td>
<td>2</td>
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BRIDGE COURSES – NON CREDIT*

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<td>MBBT 302</td>
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<td>MBBT 303</td>
<td>Basics of Accounting</td>
<td>Hard Non Credit</td>
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<tr>
<td>MBBT 304</td>
<td>Basics of Business Communication</td>
<td>Hard Non Credit</td>
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* to be organized in the first month of 1 semester Programme
Learning Objectives

- Introduce the students to understand basics of Business
- Provide an overview on Indian Industrial environment
- A prelude to institutional environment for Industrial Finance

- What is Business? Differences between Trade/Commerce/Aids to trade
- Nature of Business : Manufacturing – Services – trading – Banking – Commission Agency, etc
- Types of Organizations – Sole trader – Partnership – Company form – Cooperatives
- Business Organisations – Company form – Formation – Board of Directors – Memorandum of Association – articles of Association
- Business Combinations – Cartels – Mergers & Takeovers
- Foreign Trade – Exports – Imports – Special Economic Zones – EOU
- Indian Industrial Policy – IPRs – Public Vs Private Sector – Privatization
- Top Business Houses – Product Concentration – Entry of MNCs
- Business Environments: Internal and External: Legal-Political-Economic-Cultural-Geographical-
- Indian Banking – Public Sector Banks – Private Sector Banks – Foreign Banks – RBI – Credit creation by Banks – RBI Credit Policy

Basic Text Book and References

4. Maheswari S.N. “Indian Banking Law & Practice”, Kalyani, Ludiyana
Learning Objectives:

- Understanding of Programming
- Understanding of Object Oriented Programming
- Understanding of Client Server Programming

A. Introduction to Imperative Programming using C
   1. Data Types, Constant, Variables, Assignment Statement, I/O Functions
   2. Control and Loop Statements– Arrays, Functions
   3. Structure and Union –File Functions– Sample Programs

B. Introduction to Object Oriented Programming using C ++
   4. Class, Constructor, Destructor, Data & Method Visibility
   5. Operator Overloading–Function Overloading–Friend Function–Virtual Functions
   6. Template Class– Abstract Class –IO Streams– Sample Programs

C. Introduction to Client-side Scripting languages
   7. HTML
   8. Java Script
   9. Sample Application

D. Introduction to Server-side Scripting Language
   10. JSP
   11. JDBC in JSP
   12. Sample Applications

Basic Text Books & References

4. Bruce W. Perry, Java Servlet & JSP Cookbook, O’Reilly Media, 2004
Learning Objectives

- Understanding Basic Principles of Accounting
- Hands on skills in preparing Financial Statements of a Business enterprise
- Accounting Principles and Conventions
- Transaction Processing–Debit and credit classification–Double Entry Book Keeping
- Types of Accounts – Personal, Nominal and Real
  - Journal : Opening Accounts– Closing Entries
  - Day Book – Cash transaction– Entry making
- Subsidiary Books of Accounts– Sales Ledger –Purchase Ledger
- Cash Book–Cash with Bank transactions– BRS
- Trial Balance –Debit accounts– Credit accounts–Balance
- Features of Manufacturing and Trading Account– Determination of Gross Profit
- Profit and Loss account–Preparation, classification of entries
- Income Statement– Preparation with simple adjustments
  - Assets – Classification– Fixed and Current Assets– Depreciation Methods
- Preparation of Balance Sheet– Simple adjustments

Text Books and References

2. Rustomji,M.K,—AllaboutBalancesheets‖,MacMillan,2005
5. Homgrean,Charles.T, _IntroductionManagementAccounting_,Pearson201
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

Bridge courses

MBABT304: Basics of Business Communication

Hard Core
No Credit

(Workshop Methodology)

- Strategies for effective communication
- Developing History Skills.
- Communication of Business issues
- Business jargon development
- Skimming, Inferences, Note making.
- Effective writing – Cohesiveness - clarity
- Oral Communication- Presentation- Group Discuss- Extempore- Debates- Role play- Conservative Practices.
- Reporting of a Business activates after a field visit to Vegetable Market/ Ulaver Sandai/ Sunday Market/ Business Bazar.
- Preparing a New paper based on News Telecasted in a Business Channel.
- YouTube Video presentation of different company profitable (Top 50 Big Business Houses)
- Poster Presentation on different thesis (List of PS Banks- Emblems/ RBI Departments / MOF Divisional/ PSUS in India/ Broad Names)
- Role play on Business Issues/ Production Decision Making / Labor Unrest/ Media Coverage/ Street Marketing Etc.

Text Book and Reference Book:

MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

I SEMESTER

MBBT411: Economics for Managers  
MBBT412: Management Concepts and Principles  
MBBT413: Accounting for Managerial Decision Making  
MBBT414: Quantitative Techniques for Management  
MBBT415: Indian Banking & Financial System  
MBBT416: System Analysis and Design  
MBBT417: Data Storage & Data Centre Management  
MBBT418: Business System Analysis Lab – Using OOMD  
MBBT419: Comprehensive Viva
Learning Objective

- To prepare the students with the methodology of decision making using the concepts of microeconomics.
- Facilitate Understanding the functioning of markets in theory and practice.
- Provides a brief background of macroeconomics fundamentals of Indian economy.


3. **Production and Cost Analysis:** Production function-Cost output relations-Cost of production-Production and costs- Production in short and long run-Cost in short and long run- Isoquants-Law of returns-Law of variable proportion-Economies of scale

4. **Market Structures:** Different market structures-Firms in competitive markets-Monopoly-Monopolistic competition-Oligopoly-Profit maximization in different market structure-Pricing practices-Methods and strategies of price determination-Market failure

5. **Macroeconomics (Introduction):** Aggregate demand and supply- National income- Money and inflation-Quantity theory of money-Business cycles- IS and LM curve-Monetary and fiscal policies

**Basic Text Book & References:**

Learning Objectives:
To make the student understand the basic management concepts and the principles and impart the necessary skills required to manage various functions of business organizations in order to provide the professional approach and outlook.

1. Management Process: Nature and Purpose; Functions of Management; Evolution of Management Thought; Management Approaches; Management and Society; External Environment, Social Responsibility and Ethics – Managerial Skills - Qualities of a Good Manager; - Introduction to Strategic Management.

2. Planning: Nature and Purpose; Objectives - Strategies, Policies and Planning Premises Types of Plans; Steps in Planning; Management by Objectives; Strategic Planning Process; Decision Making Process.

3. Organizing: Nature of Organizing - Organizational Structure; Organization Levels and Span of Management; Basis of Departmentation; Line and Staff Relationship; Decentralization and Delegation of Authority; Effective Organizing and Organizational Culture. Staffing Systems Approach – Selection, Appraisal and Training - Communication Process; Types of Communication; Barriers to Effective Communication; Motivation Theories: Maslow, Herzberg, McGregor. Approaches and Styles of Leadership.

4. Direction and Control Process: Requirements for Effective Control; Control Techniques; Role of Information Technology; Management Information System; Management by Exception; Overall Control and toward the Future through Preventive Control -Controlling and Challenges.


Text Book and References:

Learning Objectives:
- To introduce the Basic Concepts of Financial Accounting
- To familiarize the students with financial statements and principles underlying them and to develop their skills in reading Annual Reports
- To acquaint them in brief with accounting mechanics, process and system, but emphasis is laid on sound concepts and their managerial implications
- To lay a foundation for developing their skills in interpreting financial statements
- To develop an appreciation about the utility of cost information as a vital input for management decision making

1. Preparation of Financial Statements-Analysis of Financial Statements-Comparative common size and trend analysis-Preparation of final accounts of banking companies-asset classification and provisioning.


Basic Text Book and References

1. Maheswary S N, Management Accounting, Sultan Chand & Sons, New Delhi


**Basic Text Book and References:**

1. **Levin & Rubin., Statistics for Management, Prentice Hall, New Delhi (Text Book)**
2. Gupta, S P., Statistical Method, Sultan Chand, New Delhi
3. Arora&Arora, Statistics for Management, S Chand & Co, New Delhi
4. Kothari C. R., Quantitative Techniques, Vikas, New Delhi
5. Tulscan PC & Vishal Pandey., Quantitative Techniques, Pearson Education, Mumbai
Learning Objectives: To teach techniques and approaches to students so that they may analyze and develop business systems more effectively and efficiently.


Text Books and Reference Books
Learning Objectives:
* Understanding of Storage Technology
* Understanding of Networked Storage
* Understanding of Data Center

1. **INTRODUCTION TO STORAGE TECHNOLOGY**: Review data creation and the amount of data being created and understand the value of data to a business, challenges in data storage and data management. Solutions available for data storage, Core elements of a data center infrastructure, role of each element in supporting business activities.

2. **STORAGE SYSTEMS ARCHITECTURE**: Hardware and software components of the host environment, Key protocols and concepts used by each component, Physical and logical components of a connectivity environment, Major physical components of a disk drive and their function, logical constructs of a physical disk, access characteristics, and performance Implications, Concept of RAID and its components, Different RAID levels and their suitability for different application environments, Compare and contrast integrated and modular storage systems, high-level architecture and working of an intelligent storage system.

3. **INTRODUCTION TO NETWORKED STORAGE**: Evolution of networked storage, Architecture, components, and topologies of FC-SAN, NAS, and IP-SAN, Benefits of the different networked storage options, understand the need for long-term archiving solutions and describe how CAS full fill the need, understand the appropriateness of the different networked storage options for different application environments.

4. **INFORMATION AVAILABILITY, MONITORING & MANAGING DATACENTER**: List reasons for planned/unplanned outages and the impact of downtime, Impact of downtime - Differentiate between business continuity (BC) and disaster recovery (DR), RTO and RPO, Identify single points of failure in a storage infrastructure and list solutions to mitigate these failures, Architecture of backup/recovery and the different backup/ recovery topologies, replication technologies and their role in ensuring information availability and business continuity, Remote replication technologies and their role in providing disaster recovery and business continuity capabilities. Identify key areas to monitor in a data center, Industry standards for data center monitoring and management, Key metrics to monitor for different components in a storage infrastructure, Key management tasks in a data center.

5. **SECURING STORAGE AND STORAGE VIRTUALIZATION**: Information security, Critical security attributes for information systems, Storage security domains, List and analyzes the common threats in each domain, Virtualization technologies, block-level and file-level virtualization technologies and processes

* Syllabus Covering 60% Project and 40% Test

**TEXT BOOKS AND REFERENCES:**
Learning Objectives:

This course gives a hands-on-experience to the students to build and manage the financial information systems using object-oriented design by applying established design principles using UML diagrams.

Design and Develop Financial Information Software applying Object Oriented Modeling approach using typical Case Tool as given below:

Problem Statement

1. Study of the problem
2. Identify project scope
3. Objectives and infrastructure

Business modeling and requirements specification

1. Prepare Software Requirements Specification
2. The specification language
3. Unified Modeling Language (UML)

UML

1. Design data dictionary
2. Use case diagrams
3. Activity diagrams

Build and Test

1. Class diagrams
2. Sequence diagrams
3. Collaboration diagrams
4. Add interface to class diagrams

Software Implementation

1. Coding
2. Use tools for automatic code generation from system specifications.
**Learning Objectives:**

- To evaluate the comprehensive understands of theoretical concepts of all subjects of that semester. All subjects in final comprehensive viva.
- To evaluate the communication skill of the MBA students.

**Procedure:**

**Glossary of Terms:** Every student shall prepare a list of technical terms for every hard core and elective subjects registered in the given semester. (All subjects in case of final semester)

(A minimum of 100 concepts per subject to be compiled)

**Test on Concepts:** A comprehensive viva would contain two components. Phase I is a written test on concepts for 1½ hr to be answered in one-two sentences. These papers will be evaluated by external examiners (Test paper contain at least 10 concepts per subject).

**VIVA by External Experts:** A student's ability to comprehend and apply the theoretical concepts to practical business operations will be tested by two external examiners (Mostly one academician and other industry expert). They will conduct either individual/group viva on a comprehensive business situation requiring the applications of knowledge acquired in the core subjects.

**Division of Marks:**

Test: 20

Viva: Communication - 20
  Domain Knowledge - 20
  Comprehension - 20
  Group participation - 20
### II SEMESTER

**MBBT420: Winter Project**  
Hard 2 Credits

**MBBT 421: Organizational Behavior & Human Resource Management**  
Hard 3 Credits

**MBBT 422: Financial Management**  
Hard 3 Credits

**MBBT 423: Marketing Management**  
Hard 3 Credits

**MBBT 424: Corporate Strategy Management**  
Hard 3 Credits

**MBBT 425: Retail Banking**  
Hard 3 Credits

**MBBT 426: Banking Technology Management**  
Hard 3 Credits

**MBBT 427: Information Security for Banks**  
Hard 3 Credits

**MBBT 428: Banking Channels and Middleware Lab**  
Hard 2 Credits

**MBBT : Elective I: Paper – 1**  
Hard 3 Credits

**MBBT : Elective II: Paper – 1**  
Hard 3 Credits

**MBBT 429: Comprehensive Viva**  
Hard 2 Credits
Banking Internship is to be carried out for 2 months in a Bank Branch. Students should attend to different regular activities of a Bank. All public sector/Private Sector bank branches with different operations like different deposit accounts, Credit facilities for Agricultural Loans, Educational Loans, Working capital Trade credit etc are the Branches were students should undertake This Internship Minimum 45 Physical attendance for Full day is Mandatory. A report is to be prepared on the following topics with copies of forms, documents of that given bank duly certified by the Branch Manager is to be submitted and it will be evaluated by 2 DGM/AGM level Bank officers. A viva will be conducted to evaluate the Knowledge and skills learned by students during 2 months Long Internship.

List of Topics to be covered during Internship.

- Practicing the formalities regarding opening a Savings Bank Account
- Practicing the formalities regarding opening a Current Account
- Practicing the formalities regarding opening Term Deposits
- NRE / FCNR accounts opening formalities
- Administration of Cash Departments in the Branch
- Securities aspects in the Bank branch Activities regarding withdrawal of cash
- List of activities carried out Teller / Cash Counter
- Procedures for calculation of interests on deposits and loan account
- Inward and outward Bills Collection activity
- Clearing House Operations. – MICR clearing, High value clearing and RTGS
- Electronic Funds Transfer, DD, Mail Transfer, Telegraphic / Telephonic transfer
- Different types of crossing cheque and activities associated with them
- Extension of Bank overdraft facility in SB and CD accounts
- Procedure to be followed for sanctioning a gold loan
- Appraisal of loan application of ISB loan
- Sanctioning of working capital credit line
- Formalities associated with documentation of Security
- Agency Services : Issue of drafts
- Periodic Payments
- Merchant Banking activities : Bankers to IPO issues
- Treasury operations: Barriers to Government
- List of subsidiary books operated and writing final ledger
- Checking the balances
- Day-to-day vouching procedures
- Miscellaneous services offered by banks
- Gift Cheques, Pay orders, Bankers Cheque.
- Power of Attorneys
- Fore closing accounts and activating dormant deposits
- Discounting bills and cheques Locker facility – safe deposit services Loan against securities / deposits / LIC policies
- Advances against hypothecation of goods
- Advances against book debts and supply bills
- LC / LG facilities / documentation Precautions for averting frauds / Preventive vigilance

Division of Marks

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<td>Report</td>
<td>20</td>
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<tr>
<td>Evaluation test</td>
<td>20</td>
</tr>
<tr>
<td>Viva</td>
<td>20</td>
</tr>
</tbody>
</table>


**Basic Text Books and Reference Books**


2. Keith Davis, Human behavior at work, McGraw Hill.

3. Fred Luthans, Organizational Behavior, McGraw Hill


5. VenkataRatnam C.S &Srivatsava B.K, Personnel Management and Human resources, TMH.

2. **Capital Budgeting**: Nature of Investment Decisions; Investment evaluation criteria, Net Present Value, Internal Rate of Return, Profitability Index, Payback Method, Accounting Rate of Return, NPV and IRR comparison, Capital rationing, Risk analysis and Capital Budgeting - **Cost of Capital**: Meaning and significance; Calculation of cost of Debt, Preference Capital, Equity capital and Retained earnings; Combined Cost of Capital (Weighted), Cost of Equity and CAPM


5. **Management of Working Capital**: Meaning, Significance, Types, Determinants, Calculating Operating Cycle period, Estimating working Capital requirements, Financing working capital and Norms of Bank finance, Management of Cash, Receivables and Inventory

**Basic Text Book & References:**

Objectives
Present to the students an insight into the basic concepts of marketing, impart a grasp on the marketing management as a function of business management and understand the elements of marketing and marketing strategy and to develop in them application skills towards managerial decision-making.

1 Marketing Management: Marketing Concepts and Tasks, Defining and delivering customer value and satisfaction, Marketing environment, Adapting marketing to new liberalized economy - Marketing Information System, Environment of Marketing - Analyzing Market Opportunities; Strategic marketing planning and organization.


4 Marketing Organization: Market Information System – Market Intelligence and Market Research: Marketing Research Methods –Marketing Control


References
3. Cravens, Hills and Woodruff: Marketing Management
4. Cundiff, Still, Govoni: Fundamentals of Marketing
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
II SEMESTER
MBBT 424: CORPORATE STRATEGY MANAGEMENT

Objectives
To introduce and make the students understand the strategic management process and levels and to help students identify and link Strategy formulation and implementation with environmental analysis and develop learning and analytical skill of the students to solve business cases and provide strategic solutions to various business issues


5. Business, Corporate and Global Strategies: Practices and Issues: Corporate Restructuring- Need and forms; Strategic Alternatives- Types and Evaluation; Strategic Change, Corporate Renewal, Organizational failures - Management of Strategies and Cultures; Strategic management Practice in India - Public, Private Participation - Corporate Social Responsibility (CSR)- Linking CSR with Profit and Sustainability; Environmental Accounting and Auditing; Competitive advantage of Nations and its implication on Indian Business.

TEXT BOOKS AND REFERENCES:
2. Business Policy and Strategic Management – DrAzharKazmi, Published by Tata McGraw Hill Publications
3. Strategic Management: Competitiveness &Globalisation- Michael Hilt and R. Duane Ireland, Robert E. Hoskisson South, Published by Western Thomson Learning
Course Objective
The objective of this course is to prepare the students to acquire required knowledge and skills for practical banking operations. The course facilitates learning of banking practices with special focus on retail banking operations.

1. **Introduction:** History and definition of Retail banking -Retail banking in India- Objectives of retail banking-Drivers of retail banking-Retail banking infrastructure- distinction between Retail and Corporate / Wholesale Banking-Retail banking products overview-customer requirements and -opportunities and challenges in retail banking

2. **Retail Deposits:** Types of deposits accounts- Deposits schemes-New deposits instruments- Non-Resident Deposits accounts- opening of deposits accounts- RBI Guidelines- RBI Circulars-Operational modalities-Deposit Policy- Fixation of charges- management of deposits- Deposit lockers-Customer relationship-Cash transactions


4. **Delivery Channels:** Operations-process and practicals- Traditional Delivery channels- Cheque / Withdrawal slip-Demand draft-Bankers cheque- -Modern delivery channels- ATMs, POS, Internet Banking, M-Banking-Selling Process in retail products-Direct Selling Agents- Credit -Debit Cards - Credit Vs. Debit Cards, Eligibility, Purpose, Amounts, Margin,-Remittances -Funds Transfer

5. **CRM & Retail Banking:** Bank Customer relationship-CRM Strategies-Rights and obligations of bankers-Customers right-liabilities- Other issues related to Retail Banking- Trends in retailing - New products like Insurance-online / Phone Banking, Property services, Investment advisory / Wealth management, Reverse Mortgage - Growth of e-banking, Cross selling opportunities.

**BASIC TEXT BOOK & REFERENCES:**
Learning Objective:

- Understanding of Core Banking
- Understanding of Banking Channels and Payments
- Practices on Banking Technology


2. **Delivery Channels** - Overview of delivery channels – Automated Teller Machine (ATM)
   - Phone Banking – Call centers – Internet Banking – Mobile Banking – Payment Gateways – Card technologies – MICR electronic clearing.


5. **Contemporary Issues in Banking Techniques** – Analysis of Rangarajan Committee Reports – E Banking - Budgeting – Banking Softwares – Case study: Analysis of Recent Core Banking Software.

**BASIC TEXTBOOK AND REFERENCES:**

2. Kaptan SS & Choubey NS, —E-Indian Banking In Electronic Era, Sarup & Sons, NewDelhi, 2003
3. Vasudeva,—E–Banking, Common Wealth Publishers, New Delhi, 2005
4. Turban Rainer Potter, Information Technology, John Wiely & Sons Inc
5. Banking Technology – Indian Institute of Bankers Publication
Learning objectives:

- Introduction on Data Security
- Understanding of Security Infrastructure
- Understanding of Security Operations


**BASIC TEXT BOOK & REFERENCES:**


Learning Objectives:
This lab imparts knowledge of design and development of banking software like Mobile Banking, Internet Banking, ATM system and Financial Middleware. Also, it focuses on a detailed study on the recent core banking software.

Lab Exercises
Design and Develop the following Banking Software using the appropriate technologies:

- **Mobile Banking**
  - Balance Enquiry
  - Cheque Book Request • Stop Cheque
  - Credit/Debit Notification • Bill
  - Payment

- **Internet Banking**
  - Electronic Funds Transfer • Account Management
  - Loan Application
  - Registering of new bank services
  - Customer Information Management

- **ATM system**
  - Balance Enquiry • Withdrawal
  - Deposit
  - Pin change
  - Mini statement

- **Financial Middleware**
  - Design of
    - Online Banking Middleware • ATM Middleware
    - Mobile Middleware
    - Banking Software Middleware

- **Study on the recent Core Banking Software.**
**MBA: BANKING TECHNOLOGY DEGREE PROGRAMME**

**MBABT 429: Comprehensive Viva**

*General Guidelines:*

**Learning Objectives:**

- To evaluate the comprehensive Understands of Theoretical concepts of all subjects of that semester. All subjects in final comprehensive viva.
- To evaluate the Communication Skill of the MBA Students.

**Procedure:**

**Glossary of Terms:** Every Student shall prepare a list of Technical Terms for every Hard core and elective subjects registered in the given semester. (All Subjects in case of final semester) (A minimum of 100 concepts per subject to be compiled)

**Test on Concepts:** A comprehensive Viva would contain two components. Phase I is a written test on concepts for 1½ hr to be answered in one-two sentences. These papers will be evaluated by External Examiners (Test paper contain at least 10 concepts per subjects)

**VIVA by External Experts:** A students ability to comprehend and apply the theoretical concepts to practical Business operations will be tested by two external Examiners (Mostly one Academician and other Industry expert). They will conduct either individual / group viva on a comprehensive Business situation requiring the applications of Knowledge acquired in the core subjects.

**Division of Marks:**

Test: 20
Viva: Communication - 20
  Domain Knowledge - 20
  Comprehension - 20
  Group participation - 20
**MBA: BANKING TECHNOLOGY DEGREE PROGRAMME**

**III SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MBBT 510</td>
<td>Banking Practices Summer Internship</td>
<td>Hard 2</td>
</tr>
<tr>
<td>MBBT 511</td>
<td>Bank Financial Management</td>
<td>Hard 3</td>
</tr>
<tr>
<td>MBBT 512</td>
<td>Bank Marketing</td>
<td>Hard 3</td>
</tr>
<tr>
<td>MBBT 513</td>
<td>Legal Aspects of Banking</td>
<td>Hard 3</td>
</tr>
<tr>
<td>MBBT 514</td>
<td>Risk Management in Banks</td>
<td>Hard 3</td>
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<tr>
<td>MBBT 515</td>
<td>International Banking</td>
<td>Hard 3</td>
</tr>
<tr>
<td>MBBT 516</td>
<td>Data warehousing and Applied Data Mining</td>
<td>Hard 3</td>
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<tr>
<td>MBBT 517</td>
<td>IT Infrastructure Management for Banks</td>
<td>Hard 3</td>
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<tr>
<td>MBBT 518</td>
<td>Business Intelligence Lab</td>
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<td>MBBT : Elective II: Paper – 2</td>
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<tr>
<td>MBBT 519</td>
<td>Comprehensive Viva</td>
<td>Hard 2</td>
</tr>
</tbody>
</table>
Banking Internship is to be carried out for 2 months in a Bank Branch. Students should attend to different regular activities of a Bank. All public sector/Private Sector bank branches with different operations like different deposit accounts, Credit facilities for Agricultural Loans, Educational Loans, Working capital Trade credit etc are the Branches were students should undertake This Internship. Minimum 45 Physical attendance for Full day is Mandatory. A report is to be prepared on the following topics with copies of forms, documents of that given bank duly certified by the Branch Manager is to be submitted and it will be evaluated by 2 DGM/AGM level Bank officers. A viva will be conducted to evaluate the Knowledge and skills learned by students during 2 months Long Internship.

**List of Topics to be covered during Internship.**

- Practicing the formalities regarding opening a Savings Bank Account
- Practicing the formalities regarding opening a Current Account
- Practicing the formalities regarding opening Term Deposits
- NRE / FCNR accounts opening formalities
- Administration of Cash Departments in the Branch
- Securities aspects in the Bank branch
- Activities regarding withdrawal of cash
- List of activities carried out Teller / Cash Counter
- Procedures for calculation of interests on deposits and loan account
- Inward and outward Bills Collection activity
- Clearing House Operations – MICR clearing, High value clearing and RTGS
- Electronic Funds Transfer, DD, Mail Transfer, Telegraphic / Telephonic transfer
- Different types of crossing cheque and activities associated with them
- Extension of Bank overdraft facility in SB and CD accounts
- Procedure to be followed for sanctioning a gold loan
- Appraisal of loan application of ISB loan
- Sanctioning of working capital credit line
- Formalities associated with documentation of Security
- Agency Services : Issue of drafts
- Periodic Payments
- Merchant Banking activities : Bankers to IPO issues
- Treasury operations: Barriers to Government
- List of subsidiary books operated and writing final ledger
- Checking the balances
- Day-to-day vouching procedures
- Miscellaneous services offered by banks
- Gift Cheques, Pay orders, Bankers Cheque.
- Power of Attorneys
- Fore closing accounts and activating dormant deposits
- Discounting bills and cheques Locker facility – safe deposit services Loan against securities / deposits / LIC policies
- Advances against hypothecation of goods
- Advances against book debts and supply bills
- LC / LG facilities / documentation Precautions for averting frauds / Preventive vigilance

**Division of Marks**

- Internship attendance : 40
- Report : 20
- Evaluation test : 20
- Viva : 20
Course Objective
The objective of this course is to prepare the students to deal with the issue of management of various financing activities in the banks and financial institutions. The course facilitates methodology of calculating interest rates, Credit appraisal, and Risk framework and forex dealings.

1 Introduction: Overview of changing financial sector-Global financial system-Current issues- - Macroeconomic and financial stability –linkage-The Role of trust- The Role of regulation- financial stability - The impact of regulation on financial services- The financial crisis

2 Bank’s Financial Statements: Bank liabilities-Bank assets-Contingent liabilities-of -The income statements of Indian banks- Analyzing Bank Financial Statements-Key Performance Indicators (KPI)-Bank financial statement analysis models- Interest income and non-Interest income


4 Treasury Management: Concepts and function; instruments in the treasury market, development of new financial products, control and supervision of treasury management - Interest rate risk, interest rate futures- Investment and Funding Strategies – Stock options, debt instruments, bond portfolio strategy, risk control and hedging instruments.-Investments

5 Forex Management: Forex Business; factors determining exchange rates, Direct and indirect quotations, spot /forward rates, premium and discount, cross rates-Basics of forex derivatives; forward exchange rate contracts, Options, Swaps. - Role of RBI and exchange control - Regulations in India, Role and rules of FEDAI - Role of FEMA and its rules

Basic Text Book & References:
**Course Objective**

The objective of this course is to prepare the students to acquire required knowledge and skills for Marketing of Banking products and services. The course also looks into various aspects of service quality aspects of Bank Branches.

1. **Introduction**: Identification of needs-wants-Demands- Diagnosing various banking environments-Regulatory-cultural-Political-Economic-Public-Society-customers- Employees- Retail banking in India- Drivers of retail banking- Wholesale Banking- Retail banking products overview-customer requirements and opportunities and challenges in retail banking


3. **Distribution and Promotion**: Distribution - Factors Influencing - Direct and Indirect Channels of Bank Products - Physical Distribution - Channel Functions and Services - Role of Electronic Marketing Channels-ATMs-Debit Cards-Credit Cards-POS-Internet Banking-Mobile Banking-Vending Machines-Promotion - Promotion Mix and Role of Promotion in Marketing - Marketing Information Systems

4. **Delivery Channels**: Operations-process and practical’s- Traditional Delivery channels- Cheque/ Withdrawal slip-Demand draft-Bankers cheque- Modern delivery channels- ATMs, POS, Internet Banking, M-Banking-Selling Process in retail products-Direct Selling Agents- Credit -Debit Cards - Credit Vs. Debit Cards, Eligibility, Purpose, Amounts, Margin, Remittances -Funds Transfer


**Basic Text Book & References:**

2. Retail Banking, Indian Institute of Banking and Finance, Macmillan India Ltd (2010/Latest).
Course Objective
The objective of this course is to provide the students with practical legal knowledge of banking laws and other business law issues related to banking. The course focus fundamental legal issues pertaining to business especially banking.


3 **Banking Operations:** The Negotiable Instruments Act, 1881(Amendment and Miscellaneous Provisions) Act, 2002- Notes, Bills and Cheques-Promissory notes, Bills of exchange and cheques (Demand, drafts, payment orders etc.) - Responsibility of paying-collecting banker indemnities - guarantees - scope and application - obligation of a banker – Endorsement- Crossing of Cheques- Dishonors of Cheques

4 **Commercial Laws with reference to banking operations -Letter of Credit, Indemnity, Guarantee and Bond** precautions and rights-laws relating to bill finance, LC and Deferred payments - Law relating to securities - valuation of securities - modes of charging securities - lien, pledge, mortgage, hypothecation etc.

5 **Other Laws:** The Partnership Act, 1932- Definition- types of partnership-relation of partners to one another - Minor admitted to the benefits of partnership - Dissolution of firm- effect of non-registration - The Transfer of Property Act - The Sale of Goods Act, 1930 (Sale and Agreement to sell)2000 - Right to information Act

**Basic Text Book & References:**
2. *Legal and Regulatory Aspects of Banking. Indian Institute of Banking and Finance, Macmillan India Ltd (2010/Latest).*
3. *Kumar, Ravinder: Legal Aspects of Business, Ceneage Learning India Pvt Ltd, 201/Latest.*
1. **Introduction and Overview:** Risk definition - BIS – Basel Committee – Basel I, II and III norms; Risk Process- Risk Organization - Key risks-Credit risk, market risk, operational risk, liquidity risk, legal risk, interest rate risk and currency risk – Concept of ALM for Banks.

2. **Credit Risk:** Definition - Framework for risk management - RBI guidelines for risk management - Risk rating and risk pricing - Methods for estimating capital requirements - Credit risk - standardized approach and advanced approach - Credit rating /scoring - Credit Bureaus - Stress test and sensitivity analysis - Internal Capital Adequacy Assessment Process (ICAAP) - Structured products.

3. **Operational Risk:** Definition - RBI guidelines for Operational risk - Types of operational risk - Causes for operational risk - Sound Principles of Operational Risk Management (SPOR) - Identification, measurement, control / mitigation of operational risks; Organizational set up and Policy requirements; Strategic approach and key responsibilities of ORM; Capital allocation for operational risk, methodology and qualifying criteria for banks for the adoption of the methods; Computation of capital charge for operational risk.

4. **Market risk:** Definition - Liquidity risk - Interest rate risk - foreign exchange risk - ALM organization - ALCO - Simulation, Gap, Duration analysis, Linear and other statistical methods of control; Price risk (Equity) - Commodity risk - Treatment of market risk under Basel- Standardized duration method- Internal measurement approach – VaR.


**TEXT BOOK AND REFERENCES:**

1. **Foundations of Banking Risk: An Overview of Banking, Banking Risks, and Risk-Based Banking Regulation by GARP (Global Association of Risk Professionals).**


BASIC TEXT BOOKS AND REFERENCES:
Learning Objectives:
The main purpose of the course is to develop and gain an understanding of the principles, concepts, functions and uses of data warehouses, data modeling and data mining in business. It focuses on data model for data warehouses and implementing data warehouses: data extraction, cleansing, transformation and loading, data cube computation, materialized view selection, OLAP query processing. Also, it concentrates on fundamentals of data mining, data mining process and system architecture, relationship with data warehouse and OLAP systems, data pre-processing and mining Techniques.

1. The Business Dimensional Lifecycle – Project Planning and Management – Dimensional Modeling – Advanced Dimensional Modeling.

2. Data Warehouse architecture – Back room technical architecture – architecture for the front room – infrastructure and metadata – selecting the products.

3. Aggregates – physical design – data staging – planning the deployment – maintaining and growing the data warehouse.


*Syllabus covers 60% project and 40% Test

Text Books and References:


2. Han, Jiawei; Kamber, Micheline, —Data mining: concepts and techniques, Morgan Kaufmann Publishers, 2001. (Text Book)


5. Arun K. Pujari, Data Mining Techniques, Universities Press, 2001
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
III SEMESTER

MBBT 517: IT INFRASTRUCTURE MANAGEMENT FOR BANKS

Learning Objectives:
The objective of this course is to expose the emerging area of IT Infrastructure and its Management. It focuses on the IT governance and risk management. It also deals with the risk management framework. This course comprehensively deals with IT infrastructure management and ITIL service delivery and COBIT framework.


2. Data Center Management – Data Center Basics – Data Center Architecture – Data Center Design – Data Center Network Design - Data Center Maintenance – Data Center HVAC – Data Center consolidation


5. Continual Service Improvement principles - Continual Service Improvement processes – Continual Service Improvement methods and techniques – Implementing Continual Service Improvement

*Syllabus covers 60% project and 40% Test

TEXT BOOKS &REFERENCES

2. Kailash Jayaswal, —Administering Data Centers: Servers, Storage and Voice over IP||, Wiley Publications (Text Book)
Learning Objectives:

This lab imparts the practical knowledge of the techniques and tools to provide effective business intelligence. It enables the students to leverage data warehousing and data mining to solve business problems faster by using online analytical processing, data warehousing and data mining tools. Also, this lab offers a comprehensive knowledge and strategic analysis of the data mining and warehousing technologies.

- Defining Business Requirements
  - Dimensional Analysis
  - Developing Information Packages Requirements Definition

- Architecture and Infrastructure Specification

- Metadata definition

- Multi-Dimensional Modeling
  - Star Schema
  - Snow Flake Schema

- Extraction, Transformation and Loading
  - Defining rules for ETL
  - Usage of ETL Tools

- Information Delivery – OLAP, ROLAP and MOLAP

- Data Mining – Usage of Data Mining Tools
Learning Objectives:

- To evaluate the comprehensive Understands of Theoretical concepts of all subjects of that semester. All subjects in final comprehensive viva.
- To evaluate the Communication Skill of the MBA Students.

Procedure:

**Glossary of Terms:** Every Student shall prepare a list of Technical Terms for every Hard core and elective subjects registered in the given semester. (All Subjects in case of final semester)

(A minimum of 100 concepts per subject to be compiled)

**Test on Concepts:** A comprehensive Viva would contain two components. Phase I is a written test on concepts for 1½ hr to be answered in one-two sentences. These papers will be evaluated by External Examiners (Test paper contain at least 10 concepts per subjects)

**VIVA by External Experts:** A students ability to comprehend and apply the theoretical concepts to practical Business operations will be tested by two external Examiners (Mostly one Academician and other Industry expert). They will conduct either individual / group viva on a comprehensive Business situation requiring the applications of Knowledge acquired in the core subjects.

**Division of Marks:**

Test: 20

Viva: Communication - 20

- Domain Knowledge - 20
- Comprehension - 20
- Group participation - 20
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

IV SEMESTER

MBBT: Elective I: Paper – 3  Hard 3 Credits
MBBT: Elective I: Paper – 4  Hard 3 Credits
MBBT: Elective II: Paper – 3  Hard 3 Credits
MBBT: Elective II: Paper – 4  Hard 3 Credits
MBBT 521: Final Project & Viva  Hard 6+2 Credits
MBBT 522: Comprehensive Viva  Hard 2 Credits
**Guidelines:**

- IV Semester of MBA: Banking Technology is a truncated Semester.
- Regular Classes would be held during December and February of the Even Semester.
- All students would be sent to carry out the Final Project Work on 1st March for a 8 week Industry based Final Project work.
- The Final Project has two Phases.
- In Phase I students under the guidance of a Faculty in-charge of the given Elective stream carry out the background work, identify a tentative Title for the Project work, Review 20-25 Research papers, prepare a Review Paper, take up Phase I theory Exam on Broad area of Final Project work.
- A public presentation on broad areas of proposed works to be made by students before starting II phase.
- Presentations would be evaluated by all Internal Faculty, one/two external experts appointed by Dean, School of Management.
- The division of Marks for Phase I and Phase II components is 40% and 60% respectively.
- Final Project Work must be in the area of Elective stream of the student.
- Identification of the Company / Data Source should be completed by 1st March and students should report to Companies by 5th March.
- An E mail of Broad area, Company name, Name of the Company Internal Guide, Company permission letter must be mailed to HOD with a Copy to Faculty Guides.

Students should be in regular contact with their Faculty guides (at least one e mail per week) and submit a rough draft of the Report by last week of April; Project work will be evaluated by two external examiners in a Public presentation.

**Final Project Report must contain the following Components: (75-100 Pages)**

1. Title Page (Soft Binding)
2. Attendance Certificate from the Company
3. 4- 5 Chapters (Background, Company Profile, Methodology/Algorithm/Mathematical Model), S

**Division of Marks:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Marks</th>
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</thead>
<tbody>
<tr>
<td>Phase I: Compilation of Research Papers and Presentation (Internal Assessment)</td>
<td>20</td>
</tr>
<tr>
<td>Theory Exam on Area of Subject (based on Review papers) (Internal Assessment)</td>
<td>20</td>
</tr>
<tr>
<td>Phase II: Final Project work Report (External Evaluation)</td>
<td>30</td>
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<tr>
<td>Presentation and Viva (External Evaluation)</td>
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</tbody>
</table>
Learning Objectives:

- To evaluate the comprehensive Understands of Theoretical concepts of all subjects of that semester. All subjects in final comprehensive viva.
- To evaluate the Communication Skill of the MBA Students.

Procedure:

**Gloxyory of Terms:** Every Student shall prepare a list of Technical Terms for every Hard core and elective subjects registered in the given semester. (All Subjects in case of final semester)
(A minimum of 100 concepts per subject to be compiled)

**Test on Concepts:** A comprehensive Viva would contain two components. Phase I is a written test on concepts for 1½ hr to be answered in one-two sentences. These papers will be evaluated by External Examiners (Test paper contain at least 10 concepts per subjects)

**VIVA by External Experts:** A students ability to comprehend and apply the theoretical concepts to practical Business operations will be tested by two external Examiners (Mostly one Academician and other Industry expert). They will conduct either individual / group viva on a comprehensive Business situation requiring the applications of Knowledge acquired in the core subjects.

**Division of Marks:**
Test: 20
Viva: Communication - 20
  Domain Knowledge - 20
  Comprehension - 20
  Group participation - 20
ELECTIVE STREAMS

Every student should select two streams of electives. In each stream of elective, he/she has to take 4 papers out of 6 listed papers

1. Software Engineering And Technology Stream
2. Information Security Stream
3. Big Data Analytics and Storage Stream
4. Banking Operations Stream
5. Financial Services Stream
6. Capital Market Stream
7. International Finance Stream
8. Money And Development Banking Stream
## MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

### ELECTIVES

### SOFTWARE ENGINEERING AND TECHNOLOGY STREAM

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>MBBT 611</td>
<td>Agile Software Process</td>
<td>Soft 3Credits</td>
</tr>
<tr>
<td>MBBT 612</td>
<td>Design Patterns</td>
<td>Soft 3Credits</td>
</tr>
<tr>
<td>MBBT 613</td>
<td>Software Testing And Quality Assurance</td>
<td>Soft 3Credits</td>
</tr>
<tr>
<td>MBBT 614</td>
<td>Enterprise Architecture</td>
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</tr>
<tr>
<td>MBBT 615</td>
<td>Service Oriented Architecture</td>
<td>Soft 3Credits</td>
</tr>
<tr>
<td>MBBT 616</td>
<td>Smart Banking Technologies</td>
<td>Soft 3Credits</td>
</tr>
</tbody>
</table>
MBBT 611: AGILE SOFTWARE PROCESS

1. INTRODUCTION - Software is new product development – Iterative development – Risk-Driven and - Client-Driven iterative planning – Time boxed iterative development – During the iteration, No changes from external stakeholders – Evolutionary and adaptive development - Evolutionary requirements analysis – Early “Top Ten” high-level requirements and skillful analysis – Evolutionary and adaptive planning – Incremental delivery – Evolutionary delivery – The most common mistake – Specific iterative and Evolutionary methods.


*Syllabus covers 60% project and 40% Test

TEXT BOOKS AND REFERENCES
1. **INTRODUCTION TO DESIGN PATTERNS** - Design Patterns Arose from Architecture and Anthropology - Architectural to Software Design Patterns - Advantages of Design Patterns - Adapter Pattern - Strategy Pattern - Bridge Pattern - Abstract Factory Pattern


3. **VALUES OF PATTERNS** - Observer Pattern - Categories of Patterns - Template Method Pattern – Applying the Template Method to the Case Study - Using Template Method Pattern to Reduce Redundancy


5. **CASE STUDIES** - What to Expect from Design Patterns - The Pattern Community An Invitation – A Parting Thought – Banking Case Study

*Syllabus covers 60% project and 40% Test*

**TEXT BOOK AND REFERENCES**


3. Erich Gamma, Richard Helm, Ralph Johnson, John Vlissides, *“Design Patterns: Elements of Reusable Object-Oriented Software”*, Addison-Wesley, 2003.


5. Elizabeth Freeman, Eric Freeman, Bert Bates and Kathy Sierra, *“HeadFirst Design Patterns”*, O’Reily, 2004.
MBBT 613: SOFTWARE TESTING AND QUALITY ASSURANCE

Learning Objectives:
- Introduction of Software Testing
- Understanding of Test Automation
- Understanding of Software quality

1. TESTING FUNDAMENTALS: Principles of testing- Software development life cycle models-Types of testing- White box testing- Black box testing- Integration Testing – System and acceptance testing- Performance testing -Regression testing – Internalization testing – Ad hoc testing – Testing of object oriented systems – Usability and accessibility testing.


5. TESTING PROJECTS: Managing Testing projects and groups – Legal consequences of defective software – Managing a testing group – Role of testing group – Case Study: Testing in Banking Domain

*Syllabus covers 40% project and 60% Test

TEXT BOOK and REFERENCE BOOKS:

Learning Objectives:
- Understanding of Business Architecture
- Understanding of Data Architecture
- Practicing of Enterprise Architecture

1. Introduction to Enterprise Architecture
- Architecture Standards
- Architecture Descriptions
- Architecture Framework
- Architecture Styles
- Enterprise Architecture
- Architectural View Models
- Introduction to MDM: Modeling Data and modeling approach and modeling elements and model levels

2. Modeling the Business Architecture
- Principles and Objectives
- Context and Organization
- Process Model
- Semantic Data Model
- Policies and Rules
- Requirements
- Modeling the Application Architecture
- Logical Design
- Component Design
- Functional View and Integration View
- Use Case Realizations

3. Modeling the Data Architecture
- Applications and Databases
- Mapping between the common Semantic Information Model to the Data Model
- Generating foreign key relationships
- Creating the Application Architecture Data View
- Modeling the Service Architecture
- Service Taxonomies
- Business Services
- IT Services
- Gleaning Business Services from the Business Architecture

4. Modeling the Technology, Deployment, and Operations Architectures
- Modeling IT software applications and hardware configurations
- Mapping applications, databases, and services to their technology requirements
- Modeling instances of hardware configurations
- Modeling deployments of applications, application components, databases, and IT software
- Modeling sites and their network topologies
- Capturing operations support software and processes
- Applying the Technology, Deployment and Operations architectural views to Application Architecture

5. Case Studies
- Application on Banking Domain

*Syllabus covers 40% project and 60% Test

TEXT BOOKS and REFERENCES BOOKS

Learning Objective:
* Understanding of SOA
* Understanding of BSB
* Practical on SOA


3. **Service Enablement** - Basic web services elements - Core web services standards stack - The Importance of WSDL - The design of SOAP - The use of registries via UDDI - The basic concepts of service orientation - Distributing Services Across a Network - Aligning functional and nonfunctional requirements - The role of Intermediaries in Service Networks - Modeling SOA building blocks - Using UML to analyze and design interfaces - Generating a domain model - Implementing and realizing Use Cases - Showing web service collaboration - Usage of communication diagrams.


5. **SOA in Banking Domain** - Banking business processes – SOA in Core Banking Software – Case Studies.

*Basis text book covers 60% project and 40% Test*

**BASIS TEXT BOOK AND REFERENCE:**

5. Service Oriented Architecture, The Open Group, 2007
Learning Objectives:
- Introduction on Smart Banking
- Understanding of Smart Banking Technologies
- Practices on Smart Banking Technology.

1. **Smart Banking** – Introduction – Characteristics of Smart Banking environment – Components and Technologies of Smart Banking environments – Issues in Smart Banking.


*Syllabus covers 60% project and 40% Test*

**BASIC TEXT BOOKS AND REFERENCES:**
2. RFID, Steven Shepard, McGraw Hill 2004 (Text Book)
5. RFID Implementation, Dennis Brown, McGraw Hill Osborne Media, 2006
# MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

## ELECTIVES

## INFORMATION SECURITY STREAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBBT 621</td>
<td>Network Security Management</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 622</td>
<td>Secure Electronic Payment Systems</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 623</td>
<td>Information Security and Risk Management</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 624</td>
<td>Digital Crimes and Forensics Science</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 625</td>
<td>Security Metrics</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 626</td>
<td>Information Security Lab</td>
<td>Soft 2</td>
</tr>
</tbody>
</table>
Learning objectives

- Understanding of Security Modal
- Understanding of security in different network layers
- Practices on Network Security Development


*Syllabus covers 60% project and 40% Test*

**Text Books and References**

Learning Objectives

1. Introduction on E-Commerce related security
2. Understanding in Security Algorithms and Architectures
3. Understanding and Practices on E-Payment and Digital Money


*Syllabus covers 60% project and 40% Test

Text books and References:
Learning Objectives

- Introduction to Right Assessment
- Understanding of Risk Assessment Methodologies
- Understanding and Practices on Performance Assessment


5 **Open source tools** – Open source tools used for Assessment and Evaluation, and exploitation framework – Final report preparation and post assessment activists.

*Syllabus covers 60% Case Studies and 40% Test*

Text Books and References:

5. Garfinkel S., Spafford G., “Practical Unix and Internet Security”, O’Reilly
Learning Objectives

- Understanding of E-Procurement
- Understanding of Digital Crimes and Laws
- Understanding the practices of Forensic Science


4 Types of Computer Forensics Systems: Internet security, IDS, Firewall, Public key, net privacy systems, vendor and computer Forensics services. Computer Forensics evidence and capture: Data recovery, evidence collection and data seize, duplication and preservation of digital evidence, computer image verification and authentication.


*Syllabus covers 60% Project and 40% Test

TEXT BOOKS AND REFERENCES

2. John R. Vacca, Computer forensics:computer crime scene investigation,Volume 1 (Text Book)
5. Professionals, Law Enforcement, and Prosecutors”

MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: INFORMATION SECURITY STREAM

MBBT 624: DIGITAL CRIMES AND FORENSICS SCIENCE

Soft Core 3 Credits
Learning Objectives


5. Case studies on Enterprise Metrics – Web application Vulnerabilities etc.

*Syllabus covers 60% Project and 40% Test

Text Books and References:


Every student has to choose a project related to information security and implement the same as part of this course. Implementation is to be done by adopting software engineering methodology. Object oriented design approach is to be adopted. After implementation a report is to be prepared and submitted.

For the Mini Project, the following documents are to be prepared:

1. **Project Planning:** Thorough study of the problem, Identification of the project’s scope, objectives, Infrastructure and cost estimation
2. **Software requirement Analysis:** Feasibility study - Documentation of all the requirements as per the Software Requirement Specification – conventions.
3. **Design and Development:** Preparation of use case, collaboration or sequence, class, object, package, deployment diagrams and coding of the project.
4. **Software Testing:** Prepare test plan, test case and perform validation testing.
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

ELECTIVES

BIG DATA ANALYTICS AND STORAGE STREAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBBT 631</td>
<td>Data Science and Big Data Analytics</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 632</td>
<td>Cloud Infrastructure and Services</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 633</td>
<td>Backup Recovery Systems and Architecture</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 634</td>
<td>Information Systems Control and Audit</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 635</td>
<td>Data Analytics and Social Networking</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 636</td>
<td>Data Visualization and Business Intelligence</td>
<td>Soft 3</td>
</tr>
<tr>
<td></td>
<td>Reporting</td>
<td></td>
</tr>
</tbody>
</table>
Learning objectives:
This course provides practical foundation level training that enables immediate and effective participation in big data and other analytics projects. It establishes a baseline of skills that can be further enhanced with additional training and real-world experience. The course provides an introduction to big data and a Data Analytics Lifecycle Process to address business challenges that leverage big data. It provides grounding in basic and advanced analytics methods and an introduction to big data analytics technology and tools, including MapReduce and Hadoop. The course has extensive labs throughout to provide practical opportunities to apply these methods and tools to real-world business challenges and includes a final lab in which students address a big data analytics challenge by applying the concepts taught in the course in the context of the Data Analytics Lifecycle.

1 Introduction to Big Data Analytics: Big Data Overview, State of the Practice of Analytics, Big Data Analytics in Industry Verticals. Overview of Data Analytics Lifecycle, Discovery, Data Preparation, Model Planning, Model Building, Communicating Results and Findings, Operationalizing.

2 Using R for Initial Analysis of the Data: Introduction to Using R Initial Exploration and Analysis of the Data Using R Basic Data Visualization Using R. How to use the R package as a tool to perform basic data analytics, reporting, and apply basic data visualization techniques to sample data. Apply basic analytics methods such as distributions, statistical tests and summary operations, and differentiate between results that are statistically sound vs. statistically significant. Identify a model for sample data and define the null and alternative hypothesis.

3 Advanced Analytics and Statistical Modeling for Big Data – Theory and Methods: Examining analytic needs and select an appropriate technique based on business objectives; initial hypotheses; and the data's structure and volume. Apply some of the more commonly used methods in Analytics solutions. Explain the algorithms and the technical foundations for the commonly used methods. Explain the environment (use case) in which each technique can provide the most value. Use appropriate diagnostic methods to validate the models created. Use R and in-database analytical functions to fit, score and evaluate models.

4 Advanced Analytics and Statistical Modeling for Big Data – Technology & Tools: Learning various tools to Perform Analytics on Unstructured data using MapReduce Programming paradigm. Use Hadoop, HDFS, HIVE, PIG and other products in the Hadoop ecosystem for unstructured data analytics. Effectively use advanced SQL functions and Greenplum extensions for in-database analytics. Use MADlib to solve analytics problems in-database.

5 Endgame - Operationalizing an Analytics Project: The various tasks needed to operationalize an analytics project. Deliverables of an analytics lifecycle project. Framework for creating final presentations for sponsors and analysts. Evaluation of data visualization and ways to improve – Application of these concepts to a big data analytics problem in the final lab.

*Syllabus covers 60% Project and 40% Test

Text Book and References:
2) Agile Analytics: A Value-Driven Approach to Business Intelligence and Data Warehousing, Author: Ken W. Collier Publisher: Pearson Education (2012), ISBN-13:- 9788131786826
3) MapReduce Design Patterns, Author: Donald Miner, Publisher: O'Reilly (2012), ISBN-13:- 9789350239810

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Learning objectives:
This course focuses on Cloud Infrastructure and Services (CIS), cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. The course covers technologies required to build classic (traditional), virtualized, and cloud data center environments. These technologies include compute, storage, networking, desktop and application virtualization. Additional areas of focus include backup/recovery, business continuity, security, and management. Students will learn about the key considerations and steps involved in transitioning from the current state of their data center to a cloud computing environment. Upon completing this course, students will have the knowledge to make informed decisions about migrating to cloud infrastructure and choosing the best deployment model for their organization.

1. **Introduction to the Cloud Computing:** Business drivers, definition, essential characteristics, and phases of journey to the Cloud. Business drivers for Cloud computing, Definition of Cloud computing, Characteristics of Cloud computing as per NIST, Steps involved in transitioning from Classic data center to Cloud computing environment.

2. **Classic Data Center (CDC):** The key elements of CDC – compute, storage, and network, with focus on storage networking, business continuity, and data center management. Application, DBMS, Compute, Storage and Networking, Object based and Unified storage technologies, Business continuity overview and backup, Replication technologies, CDC Management.

3. **Virtualized Data Center (VDC):** Virtualization of core technologies in a data center, leading to Virtualized Data Center (VDC). Fundamental concepts of compute, storage, networking, desktop and application virtualization. Concepts and techniques employed for ensuring business continuity in a virtualized data center. Compute, Storage, Network virtualization techniques, Virtual machine (VM) components and process of converting physical to VMs, Block and file level storage virtualization, Virtual provisioning and automated storage tiering, Virtual LAN (VLAN) and Virtual SAN (VSAN) and their benefits, Key network traffic management techniques in VDC, Methods for implementing desktop virtualization, their benefits, and considerations, Application virtualization methods, benefits, and considerations, Backup and recovery of Virtual Machines (VMs), VM replication and migration technologies, Recovery options from total site failure due to a disaster.

4. **Cloud Computing and Infrastructure:** Essential characteristics of Cloud Computing, Different Cloud services and deployment models, the economics of Cloud, Cloud infrastructure components, and Cloud service creation processes. Cloud service management processes that ensure that the delivery of Cloud services is aligned with business objectives and expectations of Cloud service consumers. Cloud services models, Cloud deployment models, Economics of Cloud, Cloud infrastructure components, Cloud service creation processes, Cloud service management processes.

5. **Cloud Security and Migration to cloud:** Key security concerns and threats and details Cloud model suitable for different categories of users. Security concerns and counter measures in a VDC and Cloud environment, Governance, Risk, and Compliance aspects in Cloud, Cloud security best practices, Cloud models suitable for different categories of users, Considerations for choosing applications suitable for Cloud, Different phases to adopt the Cloud.

*Syllabus covers 60% Project and 40% Text
Text Book and Reference Books:
2) Cloud Computing For Dummies Author: Holger Fern, Kaufman Marcia, Bloos Robin, Hurwit Judith, Publisher: Wiley India Pvt Ltd (2009 )
3) Toby Veile, Anthony Veile, Robert Eilenpeter, Cloud Computing, A Practical Approach
4) Tim Mather, SubakKumarawany, ShahedLatif, Cloud Security and Privacy: An Enterprise Perspective on Risks and Compliance
5) John Rittinghouse, James Ransome, Cloud Computing
Learning objectives:

- To provide an overview of Backup and Recovery infrastructure
- To provide knowledge about backup and recovery theory, including backup methods, planning and key terminology
- The course focuses on the concepts and technologies used in Backup and Recovery environments

1 Backup Theory: This unit provides an introduction to backup and recovery, including the reasons for performing backups, definition of common backup and recovery terms, and a look at the flow of data in typical client/server backup and restore operations. Backup and Recovery Overview Backup/Recovery Methods and Operations.

2 Information Storage Concepts: This unit introduces disk architecture and storage systems including storage area networks (SAN) and network attached storage (NAS). Introduction to Storage Systems, Protecting Disks in Arrays, Intelligent Storage Systems, Direct-Attached Storage, SCSI Architecture, Storage Area Networks, Network-Attached Storage, Protecting Data in External Storage, Continuous Data Protection. The unit concludes with a discussion of storage system features that are used in backup and recovery operations.

3 Backup Client: This unit focuses on the various sources of backup data including file system data and several types of databases, including Oracle, Microsoft SQL, and Exchange, Protecting Data in File Systems vs. Applications, Microsoft Volume Shadow Copy Service, File Servers, Virtualization, Client and Remote Office Backups, Backup Considerations and Challenges.

4 Backup Storage Node: This unit looks at backup and recovery from the perspective of the storage node, including the various protocols used when writing data and the advantages and disadvantages of the various types of backup storage media Storage Node Components, Protocols, Backup to Physical Tape, Backup to Disk, Backup to Virtual Tape, Deduplication Systems, Cloud Storage.

5 Backup and Recovery Planning: This unit examines the various factors to be considered in backup and recovery planning, Management and Testing, Disaster Recovery Considerations, Students are given the opportunity to use the concepts they have learned in the course to develop a proposed solution that addresses the backup and recovery concerns of a sample company’s backup and recovery concerns.

*Syllabus covers 60% Project and 40% Test

Text Book and Reference Book:

2) Disaster Recovery & Business Continuity: Author: Thejendra BS, Publisher: Shroff / IT Governance Publishing ISBN:- 9788184043310
4) Oracle DBA Backup and Recovery Quick Reference (The Prentice Hall Ptr Oracle Series)
5) Pro Data Backup and Recovery by Steven Nelson
Learning Objectives:
This course focuses on the audit and control aspects of information systems. It also deals with the risks, controls, and audit to information systems. This course emphasizes on the management control framework, data resource management controls, application control framework and processing controls. It also enables student to carry out projects which will provide experience in audit and control.


4. The Application Control Framework – Boundary Controls – Input Controls - Communication Controls

5. Processing Controls – Database Controls – Output Controls

*Syllabus covers 60% Case Studies and 40% Test

Text Book and References Books.

3. Frederick Gallegos, Daniel P. Manson, Sandra Senft, and Carol GonzalesGallegos, —Information Technology Control and Audit[|], Auerbach Publications, Second Edition, 2004
Learning Objectives:
- To understand the components of the social network
- To model and visualize the social network
- To mine the users in the social network
- To understand the evolution of the social network
- To mine the interest of the user


3 MINING COMMUNITIES: Aggregating and reasoning with social network data, Advanced Representations – Extracting evolution of Web Community from a Series of Web Archive - Detecting Communities in Social Networks - Evaluating Communities – Core Methods for Community Detection & Mining - Applications of Community Mining Algorithms - Node Classification in Social Networks.


5 TEXT AND OPINION MINING: Text Mining in Social Networks -Opinion extraction – Sentiment classification and clustering - Temporal sentiment analysis - Irony detection in opinion mining - Wish analysis - Product review mining – Review Classification – Tracking sentiments towards topics over time

*Syllabus covers 80% project and 20% Test
Text Book and References
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: BIG DATA ANALYTICS AND STORAGE STREAM

MBBT 636: DATA VISUALIZATION & BUSINESS INTELLIGENCE REPORTING

Soft Core
3 Credits

OBJECTIVES:

- To introduce visual perception and core skills for visual analysis
- To understand visualization for time-series analysis
- To understand visualization for ranking analysis
- To understand visualization for deviation analysis
- To understand visualization for distribution analysis
- To understand visualization for correlation analysis
- To understand visualization for multivariate analysis
- To understand issues and best practices in information dashboard design


*Syllabus covers 80% project and 20% Test

TEXT BOOK AND REFERENCES:
1. Stephen Few, "Now you see it: Simple Visualization techniques for quantitative analysis", Analytics Press (Text Book)
2. Stephen Few, "Information dashboard design: The effective visual communication of data", O'Reilly, 2006. (Text Book)
5. Ben Fry, "Visualizing data: Exploring and explaining data with the processing environment", O'Reilly, 2008.
# MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

## ELECTIVES

### BANKING OPERATIONS STREAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MBBT 641</td>
<td>Bank Fund Management</td>
<td>Soft 3</td>
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<tr>
<td>MBBT 642</td>
<td>Credit Risk Management in Banks</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 643</td>
<td>Banking Supervision and Control</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 644</td>
<td>E-Banking Issues and IT Laws</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 645</td>
<td>ALM and CAR Practice – Internship Lab</td>
<td>Soft 2</td>
</tr>
<tr>
<td>MBBT 646</td>
<td>Emerging Trends in Banking</td>
<td>Soft 2</td>
</tr>
</tbody>
</table>
Course Objective:
To familiarize the students with the basic concepts of funds management in the banking business and understand the management process and practice with regard to management of various liabilities and assets component and develop learning and analytical skills to manage the funds of the bank judiciously and efficiently in order to improve the profitability.


3 Investments Management: Investment Objectives and Process; Bond Valuation and Equity Valuation; Fundamental and Technical analysis; Efficient Market Theory- Portfolio Construction and Investment Process; Risk and Return; Markowitz Portfolio selection model; Sharpe Index Model; Capital Asset Pricing Model; Arbitrage Pricing Theory; Bond Portfolio Management Strategies - Valuation and Pricing; SLR and Non SLR Investments - Exposure Norms for Investments.

4 Credit Management: Definition of credit - Credit Appraisal - Credit Appraisal techniques - trade cycle - credit rating - Technical and economic feasibility- Risk Assessment and Control – Credit rating - Credit Policy- Credit Scoring - Credit Delivery System - Term Lending – Infrastructure financing - Working Capital Fianancing, Cash Credit Loan- Mortgage loan, Debt- Service Coverage Ratio - Documentation - Post sanction Supervision, Control and monitoring of credit - Documentation- Insurance – Collection Methods and Legal Action - Role of credit Department - Consortium finance, Multiple banking, Syndication of loans - Exposure norms – Best Practices.


Text Books and Reference:
4. Andrew Fight, Credit Risk Management Paperback
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: BANKING OPERATIONS STREAM

MBBT 642: CREDIT RISK MANAGEMENT

Course Objective:
To make the student understand the basic concept of credit risk management in banks and introduce various forms of credit risk faced by banks with a view to provide necessary knowledge and input besides imparting the skills required to mitigate and manage the credit risk as a professional risk manager.


2. Credit Facility and Credit risk: Financial risks – Banking and Non Banking Institutions - Company specific risks – Risk evaluation – Fundamentals of Credit analysis – Credit Rating Systems and Practice – Credit Scoring - Loan classification – Credit Delivery System - Documentation - Post sanction - Supervision, Control and monitoring of credit - Term Lending- Infrastructure financing - Debt recovery tools.


Basic Text Book and References:
4. William H Beaver and George Parker, Risk Management, Problems and Solutions, McGraw Hill.NJ.
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: BANKING OPERATIONS STREAM

MBT 643: BANKING SUPERVISION AND CONTROL

Course Objective:
To make the students understand the fundamental principles of banking supervision and its practices in India from the regulatory perspective and the banks management aspects and familiarize the control systems in banks, so as to help the students to learn and develop the required skills to manage the banking operations effectively and efficiently.

1. **Effective Banking Supervision:** Bank for International Settlement (BIS) and its Role – Basel Committee Recommendations -Core Principles of Supervision – Preconditions for Effective Supervision – Supervisory Powers, Responsibilities and Functions of Supervisor - Prudential regulations and requirements – Criteria for assessment of compliance - International Financial Stability, International standards and codes - Role of Supervisor under Basel-II.

2. **Indian Banking System and Supervision:** Reserve Bank of India – Policies and Supervisory Guidelines - Board for Financial Supervision (BFS) – Department of Banking Supervision (DBS) and its Role and Functions – Board of Management of Banks – Roles and responsibilities of Board of Directors - Corporate Governance Practice - Risk Management System and Practice; Prudential Norms - Risks to Financial stability, Early warning signs and remedial action

3. **Internal Supervision and Control System:** Internal Supervision and Control Policy and System - Statutory Audit Practice and Concurrent Audit System; Internal audit functions in banks; House Keeping in Banks - Information Systems - Segregation of Duties - Audit Program - Record Keeping - Protection of Physical Assets – Training of Staff - Succession Planning; Banking Frauds and Preventive Vigilance -Recommendations of Jilani Committee relating to internal control systems in banks.

4. **External Supervision and Control System:** RBI supervision and inspection – On site Inspection – Annual Financial Inspection – CAMELS Rating - Off site surveillance (OSS) and Monitoring – Disclosure of accounts and balance sheets – Financial Reporting – Submission of returns to RBI; Independent audit committee of the board, Role of RBI nominees on the boards of banks, Compliance officer- role and functions; Role of Board of Directors.

5. **Computer Frauds Management:** Risk assessment; Security Controls – Preventive controls, Detective Controls, Corrective controls, Physical controls, Technical Controls and Administrative Controls; Other Controls- Deterrent Controls, Recovery controls, Directive Controls; Cryptography- Encryption, Public Key Infrastructure (PKI), Key Management, Cryptanalytic Attacks, Payment Security- IS Security - IS Audit.

**Basic Text Book and References:**
1. Charles Goodhart, Basel Committee on Banking Supervision, Cambridge University Press
5. RBI Master Circulars on Supervision and Control System for Indian Banks.

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Course Objective:

To make the students understand the importance of cyber security in banks and familiarize with various kinds of cyber crimes with particular reference to banking operations and services today and make them understand the basics of cyber forensics, investigation and cyber security so that the students acquire necessary knowledge and understanding of cyber crimes in banks and the relevant legal framework to deal with such issues.

1. **Fundamentals of Criminal Behaviour and cyber crime:**

   Nature and fundamental principles of crime – Theories of Criminal Behaviour - Cyber crimes – definition, scope and growing dimensions – Cyber Criminals and characteristic- Nature and Types of cyber crimes - Cyber Crime Techniques; Computer insecurity and computer attacks; Internet Crimes and Internet Frauds; Computer Hacking and Hackers; Social Engineering; Digital signatures and forgery.

2. **Emerging Banking Environment and Vulnerability:**

   Development in Banking Industry and Banking operations – Payment and Settlement; E-commerce, Online Banking and Crimes; Banking Software crimes, Computer Hacking – browsing, password cracking, session hijacking, man in the middle attack, Website hacking, DOS, DDoS, Source code theft - On-line banking crimes and Frauds - Spaming – Phishing - identity theft, cyber money laundering, intercepting electronic communication, Accounting frauds, forgery and counterfeiting; Vulnerability in Banks - Bank Failure and its impact on the system.

3. **Cyber Forensics and Investigation:**


4. **Cyber Security in Banks:**


5. **Cyber Crimes and Legislative Framework:**


**Books and References:**

MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: BANKING OPERATIONS STREAM

MBBT 645: ALM AND CAR PRACTICE – INTERNSHIP LAB

Course Objective:
To make the students understand the importance of Asset Liability Management and Capital Adequacy for a banking institution and familiarize the students with the ALM and Capital Adequacy practice in banks with a view to develop the required knowledge and skill to manage the risk in banks.

PRACTICE PAPER

Class Room - Exercise
1. Introducing the concept of ALM and Capital Adequacy
2. Familiarizing the ALM and Capital Adequacy Internal Practices
3. Understanding the concept of ALM and its Practice in Indian Banks
4. Understanding the concept of the Capital Adequacy and its Practice in Indian Banks

Lab Exercise
• Working of ALM for select Banks using Gap Analysis and using other statistical methods
• Evaluation of ALCO functioning of select Indian Banks
• Critical Analysis of Capital Adequacy position of Select Indian Banks
• Comparative Analysis of Capital Adequacy position of Select Indian Banks with MN Banks

Sources:
• CMIE and RBI data Basis
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: BANKING OPERATIONS STREAM

MBBT 646: EMERGING TRENDS IN BANKING

Soft Core
2 Credits

Course Objective:
To make the students discuss, brainstorm, debate and role play the contemporary issues in banking business in order to understand and gain deeper knowledge in the field of Bank Management and also improve the communication skills to become a professional banker.

PRACTICE PAPER

This paper consists of discussion, debate, brainstorming and role play by the students – The teacher act as a facilitator in all the above activities. Some of the emerging issues are;

- Economic Environment and Monetary Policy - Examine the impact of monetary policy on banks, inflation, the housing market and the economy.
- Bank as a Financial Intermediary and Deposit Creator - Examine the role of the bank as a financial intermediary and deposit creator.
- Emerging Issues in Banking Risk and Risk Management Practices – Indian and International Practice – Examine and analyze international factors impacting on banks
- Regulation and Competitive Environment – Critically analyze the regulatory framework and the competitive environment in which banks operate.
- Consolidation in Banking Industry – International and Indian Experience and Examine the critical issues
- Financial Literacy and Financial Inclusion – Critically review the progress and challenges for the banks.
- Innovation and Technology- Critically review the latest trends in innovation and technology in banking.
- Impaired Assets in Indian and Internal Banking – Examine the reasons and challenges for the banks.
- Productivity and Efficiency in Indian and International Banks – Critically analyze the productivity performance of Indian and international banks.
**MBA: BANKING TECHNOLOGY DEGREE PROGRAMME**

**ELECTIVES**

**FINANCIAL SERVICES STREAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MBBT 651</td>
<td>Financial Services Intermediaries and Regulators</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 652</td>
<td>Merchant Banking Financial Services</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 653</td>
<td>Management of Mutual Funds</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 654</td>
<td>Electronic Financial Services</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 655</td>
<td>Marketing of Financial Services</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 656</td>
<td>Security Market Operations Lab - Internship</td>
<td>Soft 2</td>
</tr>
</tbody>
</table>
Learning Objectives
1. To introduces meaning and functions of Financial Intermediaries
2. To understand the role of Financial Intermediaries
3. To understand the role and functions of Financial Regulators


3. Financial Regulators – Types – Role – Functions - Ministry of finance (MOF), Ministry of corporate affairs (MCA), Reserve Bank of India (RBI) - its role as regulator

4. Security Exchange Board of India (SEBI) and its role as regulator

5. Insurance Regulatory and Development Authority (IRDA), Forward Markets Commission (FMC) - its role as regulator - Recent developments in financial regulations

Basic Text Book and Reference Books
1. Financial Services, Thummuluri Siddaiah, Pearson India, 2012
Learning Objectives
1. To introduces meaning and functions of Merchant Banks
2. To understand the role of merchant bank and its services
3. To understand the Merchant Banking Regulatory Frameworks


2. Role of Merchant Banker in Project counselling and Appraisal of Projects, Credit Syndication – Portfolio management – Working capital finance

3. Role of Merchant Banker in Foreign currency Financing – Pre-investment services – Capital Restructuring services – Merchant Banking Regulatory Frame works - Recent trends in merchant banking services


Basic Text Book and References Books

2. S.Gurusamy, Merchant banking and financial services, Thomson South – Western.
Learning Objectives

1. To introduces structure and types of Mutual Funds
2. To understand the measurement and evaluation of Mutual fund performance
3. To provide information regarding management of mutual funds and Regulations

1. INTRODUCTION TO MUTUAL FUNDS – Structure of Mutual Funds in India – Custodian – Role of AMC – NFO - Role of Registrar and Transfer Agents – Investors Right and Regulations


4. Fund distribution and sales practices and investor services: Distribution channel, sales practices, application and redemption, investment plans and services - Accounting, valuation, taxation of MFs, measurement and evaluation of MF performance - Capital gain taxation – Indexation - Regulation of MFs and MFs prospectus and balance sheet and offer document: Role of regulator in India and self regulatory organization (SROs) and investors rights and obligations, contents of offer document, the key information memorandum - SIP – STP – SWP – Choosing between Dividend payout, Divident Reinvestment and growth options.

5. Management of MFs (Investor advisory services): Helping investors with financial plan and recommending financial planning strategies to investors; Strategies of investors in MF investing: Selecting the right investment products, understanding risk in fund investing and constructing model portfolio and selecting right fund.

Basic Text Book and Reference Books:

5. Financial services, ICFAI publication.
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: FINANCIAL SERVICES STREAM

MBBT 654: ELECTRONIC FINANCIAL SERVICES

Learning Objectives
1. To introduces various e-financial services and its applications
2. To provide e-services training
3. To create various e-applications


2. How to Trade Stocks Online , Online Stock Trading Software , Trading through virtual stock market trading game using Moneybhai, MarketWatch, wallstreetsurvivor, wallstreetsurvivor, BSE’s Stock Market CHALLENGE

3. Stock Trading through Mobile – Mobile Trading System - Different applications – How to open a mobile trading account – How to trade using mobile – Various service providers – Creation of new Mobile Applications


5. Other E-Financial sevices – e-banking services - e-insurance services – e-tax services and e-filing of income tax – How to file e-tax returns

Basic Text Book and References Books
1. The Dynamics of Online Stock Trading (Finance Series) by Priya Raju and Raja Rajan T R (2006)
2. Trade Stocks Online (Wiley Online Trading for a Living) by Mark L. Larson
3. How I Enjoy Trading Stocks Online: The Principles of Cognitive Perception and Intuition by Manuel T Prospero MD
4. Options Trading: Understanding Options Trading For Beginners, How To Make Money Online With Options Trading! (... by Derek Stanzma (21 June 2014)
5. Guide to Intraday Trading by Ankit Gala & Jitendra Gala (1 August 2008)
Learning Objectives
1. To introduce concepts of Financial Services Marketing
2. To understand the role and functions of Financial Services Marketing


2. Diversification - Pricing of bank products and services - Objectives, Strategies and Methods - Factors Influencing the Pricing Decisions, Importance of Pricing.

3. Distribution – Factors Influencing - Direct and Indirect Channels of bank products - Physical Distribution – Channel

4. Functions and Services - Promotion - Promotion Mix and Role of Promotion in Marketing – Marketing Information Systems.

5. Role of DSA (Direct Sales Associates) / DMA (Direct Marketing Associates) in Bank Marketing - Channel Management - Selling function in a bank Portfolio and Wealth Management - Tele marketing / Mobile Phone banking – Marketing through Social Networks.

Text Books and Reference Books
1. Macmillan, Marketing of Banking Services, Macmillan India Limited. (Text Book)
2. Marketing of Financial Services by Dr. Dhananjay Bapat (Text Book)
3. C B Gupta & Rajan Nair, Marketing Management, Sultan Chand & Sons
Learning Objectives

1. To introduce the operations of Securities market
2. To understand the Trading process, settlement and legal frameworks


4. **CLEARING, SETTLEMENT AND RISK MANAGEMENT** - key terminologies used in clearing and settlement process - transaction cycle - settlement agencies - clearing and settlement process - securities and funds settlement - shortages handling - risks in settlement - risk management - international securities identification number - data and report downloads.


**FUNDAMENTAL VALUATION CONCEPTS** - Time value of money - understanding financial statements - *Ratio analysis.*

**Text Books and Reference Books**

2. V. A. Avadhani, Investment and Securities Market in India, Himalaya Publishing House.
5. Ravi Puliani and Mahesh Puliani, Manual of SEBI, Bharat Publication
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

ELECTIVES

CAPITAL MARKET STREAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MBBT 661</td>
<td>Security Analysis and Portfolio Management</td>
<td>Soft 3C</td>
</tr>
<tr>
<td>MBBT 662</td>
<td>Financial Derivatives and Risk Management</td>
<td>Soft 3C</td>
</tr>
<tr>
<td>MBBT 663</td>
<td>Fixed Income Securities and Treasury Management</td>
<td>Soft 3C</td>
</tr>
<tr>
<td>MBBT 664</td>
<td>Financial Econometrics and Modeling</td>
<td>Soft 3C</td>
</tr>
<tr>
<td>MBBT 665</td>
<td>Asset pricing and Equity Research</td>
<td>Soft 3C</td>
</tr>
<tr>
<td>MBBT 666</td>
<td>Investment Analytics Lab</td>
<td>Soft 2</td>
</tr>
</tbody>
</table>


**Basic Text Book & References:**


4. **Swaps:** Meaning – Mechanics of interest rate swaps – Valuation of interest rate swaps – Currency swaps – Valuation of currency swaps

5. **Trading & Clearance:** **Trading system:** Trader Workstation – Clearing entities – Open position calculation – Margin and settlement – Regulatory Framework – Risk Management – Accounting Issues

**Basic Text Book & References:**


**Basic Text Book & References:**

3. Website of National Stock Exchange,
1. **Introduction to Econometrics** – Meaning – Different data types – Cross section – Time series – Panel data

2. **Basic Regression Analysis** – Time series data – OLS with time series data – Dummy variables – Seasonality


**Basic Text Book & References:**

1. **Asset Pricing Theory** – Consumption based model and overview – Applying basic model – Mean variance frontier and Beta representation

2. **Asset Pricing Models** – Capital Asset Pricing Model (CAPM) – Intertemporal Capital Asset Pricing Model (ICAPM) – Comments on CAPM and ICAPM – Arbitrage Pricing Theory (APT) – APT vs ICAPM

3. **Fama – French Models** – Fama – Mecbeth Procedures - Three factor model – Multifactor model

4. **Contrarian and Momentum Strategies** – Debondt and Thaler model – Jegadeesh and Titman model – Carhart model

5. **Contemporary Issues in Asset Pricing Research**

**Basic Text Book & References:**

3. Journal of Finance
Data Extraction

- Extraction of Industry wise data on select fundamentals
- Extraction of Company specific data
- Annual data on select indicators across companies in a given industry
- Data on select Big Business Houses in India
- Data on Capital structure designs of select industries
- Sector wise Stock Price Indices
- Company specific Price charts and identification of events

Excel Based Exercises:

- Estimation of Daily Returns, Weekly Returns, Monthly, Quarterly and Half yearly returns
- Calculation of Geometric Mean and Standard deviation to returns

Eviews based Exercises:

- Estimation of Beta for select stocks in select industries
- Working out of lead and lag relationship
- Calculation of correlation between fundamentals and stock returns
- Estimation of Simple Regression Equation between select firm values and market returns
- Estimation of Multiple Regression Equation between select firm values and market returns
- Dummy value regressions, step-wise regressions
- Univariate time series modeling
- Multivariate time series modeling
# MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

## ELECTIVES

## INTERNATIONAL FINANCIAL STREAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MBBT 671</td>
<td>Global Financial Markets &amp; Instruments</td>
<td>Soft 3</td>
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<tr>
<td>MBBT 672</td>
<td>International Financial Management</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 673</td>
<td>Forex and Currency Derivatives</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 674</td>
<td>Foreign Trade and Documentation</td>
<td>Soft 3</td>
</tr>
<tr>
<td>MBBT 675</td>
<td>Bloomberg – International Finance Lab</td>
<td>Soft 2</td>
</tr>
<tr>
<td>MBBT 676</td>
<td>CMIE Corporate Finance Lab</td>
<td>Soft 2</td>
</tr>
</tbody>
</table>


5. Global Commodity Markets – Globally Traded Commodities – Commodity price Indicators – Futures price and cost of carry – Backwardation – Linkage between commodity Futures and Interest Rate Futures – Commodities in a Portfolio – Commodity swaps - option based commodity Hedging.

Basic Text Book & References:


MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: INTERNATIONAL FINANCE STREAM

MBBT 671: GLOBAL FINANCIAL MARKETS AND INSTRUMENTS

Soft Core
3 Credits


Basic Text Book & References:


**Basic Textbook and References:**

1. Alan C Shapiro: *Multinational Financial Management, Prentice Hall, New Delhi (Text Book).*
MBB 674: FOREIGN TRADE AND DOCUMENTATION

1. **Introduction: Export documentation**: Foreign exchange regulations; ISO 9000 series and other internationally accepted quality certificates; Quality control and pre-shipment inspection; Export trade control; Marine insurance; Commercial practices.

2. **Export Procedures**: General excise clearances; Role of clearing and following agents; shipment of export cargo; Export credit; Export credit guarantee and policies; Forward exchange cover; Finance for export on deferred payment terms; Duty drawbacks.

3. **Import Procedures**: Import licensing policy; Actual user licensing; Replenishment licensing; Import-export passbook; Capital goods licensing; Export houses and trading houses.

4. **Export Incentives**: Overview of export incentives-EPCG, Duty drawbacks, duty exemption schemes, tax incentives; Procedures and documentation.

5. **Trading Houses**: Export and trading houses schemes—criteria, procedures and documentation; Policy and procedures for EOU/FTZ/EPZ/SEZ units.

**Basic Text Book & References:**

1. **Cherianand Parab: Export Marketing, Himalaya Publishing House, New Delhi (TextBook)**
List of Practicals

- Comparative Analysis of growth trends among different classes of countries
- Trends in GDP, Population, Prices, Human Living Index, Mortality, literary lands
- Trends in Exports and Imports of OECD Country Vs Developed world.
- Cross country comparison of Labor Migration
- Trends in International Banking Operation
- Financial Centre wise Investment Flows
- Global equity issues OTC and Private placement
- Global Sovereign Debt flows
- Financial Assistance of World Bank LMF
- FDI Flows across Asian and European Countries
- FII investment in North Vs South
- Trends in issue of Euro currency Bonds, GDRs, ADRs across Continents
- Comparison of International Equity Markets over last 5 years
- Global Financial Crisis – Effects and Recovery Trends
- Statistics of International Financial Settlements
List of Practicals

Based on Annual Reports of Companies:
- Analysis of Financial Statements based on the any five select annual reports, Important Ratios, Funds Flow Analysis statements, Examining the trends over a period of time, Comparison between cross category ratios, cross sectional analysis

CMIE Based:
- Extraction of Industry wise data on select fundamentals •
  Extraction of Company specific data
- Annual data on select indicators across companies in a given industry •
  Data on select Big Business Houses in India
- Data on Capital structure designs of select industries •
  Sector wise Stock Price Indices
- Company specific Price charts and identification of events

Excel Based Exercises:
- Estimation of Daily Returns, Weekly Returns, Monthly, Quarterly and Half yearly returns
- Calculation of Geometric Mean and Standard deviation to returns •
  Estimation of Beta for select stocks in select industries
- Working out leads and lags in the stock

market SPSS Based Exercises:
- Calculation of correlation between funds and stock returns
- Estimation of Multiple Regression Equation between select firm values and market returns
- Dummy value regressions, step-wise regressions
- Multivariate Analysis : Factor Analysis and Principle Component Analysis •
  Discriminate functions and Credit Rating
- Cluster Analysis and Data distances
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME

ELECTIVES

MONEY AND DEVELOPMENT BANKING STREAM

MBBT 681  Monetary Policy & Central Banking  Soft 3Credits
MBBT 682  Development Banking  Soft 3Credits
MBBT 683  Rural Banking and Micro Finance  Soft 3Credits
MBBT 684  Corporate Governance and Ethics in Banks  Soft 3Credits
MBBT 685  Public Finance and Development Economics  Soft 3Credits
MBBT 686  Entrepreneurship and New Ventures –
             Internship Soft 2 Credits
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: MONEY & DEVELOPMENT BANKING STREAM

MBBT 681: MOMENTARY POLICY AND CRENTRAL BANKING

Soft Core
3 Credits

Course Objective
The objective of this course is to expose students to the theory and functioning of the monetary Policy and the role of Central Banks in the Economy. It also discusses the conduct of monetary policy and its effect on interest rates, credit availability, price and inflation.

1. **Introduction:** Understanding money- Concept-functions of money-kinds money of measurement-theories of money supply determination-savings-investments-role of debit card-credit card-plastic money-electronic money

2. **Central Banking System:** RBI as Central Bank- structure-functions- working-reforms-current regulatory structure- reserve system- balance sheet; goals, targets, indicators

3. **Monetary Theory:** Reserve system-money creation-money multiplier-money supply- The Level of Prices and the Value of Money- money supply- money demand, and monetary equilibrium-Quantity theory-inflation- classical theory of money-modern theory of money and income

4. **Central Banking and Monetary Policy:** Functions-goals-targets-indicators and instruments of monetary control-monetary management in an open economy- Tools of monetary policy- conduct of monetary policy- effect of monetary injection-current monetary policy of India.

5. **Economics of Banking:** Understanding Interest Rates- Risk and Term Structure of Interest Rates- Interdependence of Markets and Interest Rates- Rational Expectations and Efficient Markets- Role of financial markets and institutions-problem of asymmetric information – adverse selection and moral hazard-financial crises.

**Basic Text Book & References:**

Course Objective
The objective of this course is to creating awareness about various development banking institution In Indian and international context. The study focus their working of these institutions and their role in economic growth. The study also covers, various financing schemes of development banks giving special focus to India.

1. **Introduction**: Origin of development banks-Meaning- scope and importance in the economy- Structure and functions of development banks-Difference between development banks and commercial banks-Development banks and merchant banks

2. **Development Banks In India**: Origin-Growth-Pre Independence and Post-Independence and lending policies-The role-coverage-functions-importance in industrial growth- Working of IDBI-IFCI-SIDBI-STCs-UTI-NABARD- RBI and Government Initiative- Subsidies for SMEs

3. **Operational Activities**: Direct Assistance-Indirect Assistance-Refinance Schemes-Refinance Schemes for Industrial rehabilitation- Refinance Schemes for modernization-Bill rediscounint schemes-Soft loan schemes-seed capital-Development Assistance Fund (DAF)

4. **Non-financial Development Activities**: Introduction - Development of Backward Areas - Spread of Industrial Culture Among Weaker and Underprivileged Sections of Community - Research Studies and Surveys -Seminars, Workshops and Conferences-Science and Technology Entrepreneurs Parks


**Basic Text Book & References:**
Course Objective
The objective of this course is to expose students to the key issues linked to rural banking including the challenges in Indian context. It also discusses the initiatives of the government for inclusive financial system such as micro finance.


2 Agricultural Economy: Agriculture Economy-Structure and characteristics of Indian agriculture- Role of agriculture in economic development-agriculture-industry linkages - constraints to agriculture development- Emerging issues in Indian Agriculture- Rural infrastructure; Transport, Power- Markets and other services

3 Rural Financing and Development Policy- policies and programmes for rural farm and non-farm sectors. Economic reforms and its impact on rural economy- Regulation of Rural Financial Services; - NABARD, RBI- role, refinance support. Lead bank approach, State level and- District level Credit committees- subsidy-linked credit programmes of the Government- -Priority Sector Financing

4 Micro Finance: Genesis and evolution of microfinance- different models of microfinance operating in India; - Bank Linkage Programme (SBLP) as an innovative strategy of microfinance evolved in India - SME Finance; Definition of SME .Importance to Indian economy- Financing of SME- Revival of sick units; revival package- and implementation, Stressed assets under rehabilitation.

5 Problems and prospects in Rural Banking: Problems of Rural branches of Commercial banks- transaction costs and risk costs- Technology based Financial Inclusion- Emerging trends in rural banking-financing poor as bankable opportunity- Micro Credit, Self- Help Groups / NGOs, linkages with banking, latest guidelines of GOI and RBI

Basic Text Book & References:
Course Objective
The objective of this course is to expose students to the Principles, Policies and Practices of Corporate Governance. The Course also presents theories, models and issues. The course prepares the students for ethical practices and leadership.

1. **Introduction:** Corporate governance-separation of ownership- developments in 1980s,1990s and in 21st century-Governance and Management-Definitions-Scope-Drivers of corporate governance-Pillars of corporate governance-Corporate governance in Banks-RBI Initiatives-BRI Act

2. **Board Architecture:** Directors-Role-Types-Appointments-Board Structures-Board Committees- Unitary and Dual Role- Functions of Board-Board and firm performance-Board Room reality-Directors responsibilities-Director compensation-Board effectiveness-Board meetings


4. **Disclosures:** Disclosure practices around the world- Disclosure practices in India- Current Practices-Disclosures in annual reports- company websites-disclosures to stock exchanges-Disclosures related to financial statements-Disclosure of key personnel and executive compensation- Disclosures of financial institutions- RBI guideline-Audit Committee-BCSBI Codes

5. **Corporate Ethics:** Definitions- theories of ethics-Ethics and Business: A sense of business ethics-Conflicts and Ethical Dilemmas – moral & ethical dilemmas-Ethics and Economics: Ethical concerns of economic individuals and societies-Behavior of Business to its colleagues / competitors-Ethics of Marketing & advertising-Ethics of Finance & Accounting-corporate-Corporate citizenship-Environmental Ethics

**Basic Text Book & References:**
MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: MONEY & DEVELOPMENT BANKING STREAM

MBBT 685: PUBLIC FINANCE AND DEVELOPMENT ECONOMICS

Course Objective
The objective of this course is to expose students to the role and functions of government financing. The course also look into the efficiency and equity aspects of taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralization in India


4 Budget :Meaning, Revenue and Capital Budget- Surplus, Deficit and Balance Budget- Preparation of Indian Central Budget- Concept of Deficit - Revenue, Fiscal, Primary- Gender Budget-Deficit Financing- Meaning, Objectives and Causes- Deficit finance since 1991- Effects of Deficit Financing

5 Centre-State Financial Relationship:Constitutional Provisions - Recommendations of finance Commission- Centre- State Conflict- Fiscal Federalism in India- State and Local Finances

Basic Text & References:

1. D. K. Srivastava, Issues in Indian Public Finance, New Century


MBA: BANKING TECHNOLOGY DEGREE PROGRAMME
ELECTIVE: MONEY & DEVELOPMENT BANKING STREAM

MBBT 686: ENTREPRENEURSHIP AND NEW VENTURES

Course Objective
The focus of this course is to create a learning experience to enable the students to face the challenges of starting new ventures. This involves the process of starting new business and the skills for managing existing family business.

1 Evaluating Entrepreneurial Career Options and Startup Opportunities
   ❖ Overview of Entrepreneurship
   ❖ What Does It Take to Be an Entrepreneur?
   ❖ Evaluating New-Business Opportunities
   ❖ Research & Analysis to Guide Your Startup Strategy
   ❖ The Entrepreneur’s Role, Task and Personality
   ❖ Defining Survival and Success

2 Understanding Startup Finances and Capital Requirements
   ❖ An Overview of Startup Finances and Sources of Investment Capital
   ❖ Developing Financial Projections—How to Forecast Expenses and Revenue
   ❖ Case Discussion: Raising Seed Financing
   ❖ Workshop: Capitalization and Ownership for New Ventures

3 Developing and Presenting Startup Business Plan
   ❖ The Venture Communication -Communication for Startups
   ❖ Examining Sample Business Plans and Executive Summaries
   ❖ Workshop: Business Plan Critique
   ❖ The Art of the Venture Presentation
   ❖ Developing Entrepreneurial Marketing: Competencies, Networks and Frameworks
   ❖ Gathering Resources

4 Launching and Managing the Startup Enterprise
   ❖ Maintaining Competitive Advantage
   ❖ The Changing Role of the Entrepreneur: Mid-Career Dilemmas
   ❖ What to Expect During the “Launch Stage”
   ❖ Where to Focus First? The Imperatives of the Launch Stage
   ❖ Legal Issues Facing Entrepreneurs
   ❖ Building Your Team

Suggested Readings: