ANNA UNIVERSITY COIMBATORE

M.C.A (MASTER OF COMPUTER APPLICATIONS)

CURRICULUM 2007 – FULL TIME (6 Semesters)

V SEMESTER

Code No.	Course Title	L	T	P	M	C
THEORY						
MC501	Mobile Computing	3	0	0	100	3
MC502	C# & .NET Frame work	3	1	0	100	4
MC503	Middleware Technologies	3	1	0	100	4
MC504	Elective II	3	0	0	100	3
MC504	Elective III	3	0	0	100	3
PRACTICAL						
MC506	Software Development Lab	0	0	3	100	1.5
MC507	C# & .NET Frame work Lab	0	0	3	100	1.5
MC508	Middleware Technologies Lab	0	0	3	100	1.5

VI SEMESTER

Code No.	Course Title	L	T	P	M
Theory					
MC601	Project Work	0	0	24	400

LIST OF ELECTIVES
M.C.A. (MASTER OF COMPUTER APPLICATIONS)

ELECTIVE – II, III

General Electives
 MC E08 Data Warehousing and Data Mining
 MC E09 Component Based Technologies
 MC E10 Enterprise Resource Planning
 MC E11 Software Agents
 MC E12 Supply Chain Management
 MC E13 IT Infrastructure Management
 MC E14 Information Security
 MC E15 Information System Audit

Banking Technology
 MC E16 Banking Technology and Management
 MC E17 Merchant Banking and Security Market
 MC E18 Investment Banking
 MC E19 International Banking

Call Center Management
 MC E20 Customer Relationship Management
 MC E21 Business Process Outsourcing
 MC E22 Call Center Technology
 MC E23 Stress Management

E-Learning
 MC E24 Introduction to E-learning
 MC E25 Instructional Design for E-learning
 MC E26 E-learning Technology
Trading and Equity Management
 MC E27 Portfolio Management
 MC E28 Risk Management
 MC E29 Merchant Banking and Security Market
Health Care Management
 MC E30 Health Care Information Systems
 MC E31 HRM in Health Care Services
 MC E32 Legal Aspects in Health Care

MC501   **MOBILE COMPUTING**   3   0   0   100   3

UNIT I   WIRELESS COMMUNICATION FUNDAMENTALS   9
Introduction – Wireless transmission – Frequencies for radio transmission – Signals –
Antennas – Signal Propagation – Multiplexing – Modulations – Spread spectrum – MAC
– SDMA – FDMA – TDMA – CDMA – Cellular Wireless Networks.

UNIT II   TELECOMMUNICATION NETWORKS   11
Telecommunication systems – GSM – GPRS – DECT – UMTS – IMT-2000 – Satellite
Networks - Basics – Parameters and Configurations – Capacity Allocation – FAMA and
DAMA – Broadcast Systems – DAB - DVB.

UNIT III   WIRLESS LAN   9
Wireless LAN – IEEE 802.11 - Architecture – services – MAC – Physical layer – IEEE
802.11a - 802.11b standards – HIPERLAN – Blue Tooth.

UNIT IV   MOBILE NETWORK LAYER   9
Mobile IP – Dynamic Host Configuration Protocol - Routing – DSDV – DSR –
Alternative Metrics.

UNIT V   TRANSPORT AND APPLICATION LAYERS   7
Traditional TCP – Classical TCP improvements – WAP, WAP 2.0.
                                                        TOTAL : 45
REFERENCE BOOKS
1. Jochen Schiller, "Mobile Communications", PHI/Pearson Education, Second
   Edition, 2003. (Unit I Chap 1,2 &3- Unit II chap 4,5 &6-Unit III Chap 7.Unit IV
   Chap 8- Unit V Chap 9&10.)
2. William Stallings, "Wireless Communications and Networks", PHI/Pearson
   Education, 2002. (Unit I Chapter – 7&10-Unit II Chap 9)
3. Kaveh Pahlavan, Prasanth Krishnamoorthy, "Principles of Wireless Networks",
   PHI/Pearson Education, 2003.
4. Uwe Hansmann, Lothar Merk, Martin S. Nicklons and Thomas Stober,
   "Principles of Mobile Computing", Springer, New York, 2003.

MC502   **C # AND . NET FRAMEWORK**   3   1   0   100   4

UNIT I   INTRODUCTION TO C#   8

Introducing C#, Understanding .NET, Overview of C#, Literals, Variables, Data Types, Operators, Expressions, Branching, Looping, Methods, Arrays, Strings, Structures, Enumerations.

UNIT II   OBJECT ORIENTED ASPECTS OF C#   9

Classes, Objects, Inheritance, Polymorphism, Interfaces, Operator Overloading, Delegates, Events, Errors and Exceptions.

UNIT III   APPLICATION DEVELOPMENT ON .NET   8

Building Windows Applications, Accessing Data with ADO.NET.

UNIT IV   WEB BASED APPLICATION DEVELOPMENT ON .NET 8

Programming Web Applications with Web Forms, Programming Web Services.

UNIT V   THE CLR AND THE .NET FRAMEWORK   12

Assemblies, Versioning, Attributes, Reflection, Viewing MetaData, Type Discovery, Reflecting on a Type, Marshaling, Remoting, Understanding Server Object Types, Specifying a Server with an Interface, Building a Server, Building the Client, Using SingleCall, Threads.

                                                        TOTAL : 45

REFERENCE BOOKS
1.   E. Balagurusamy, "Programming in C#", Tata McGraw-Hill, 2004. (Unit I, II)
2.   J. Liberty, "Programming C#", 2nd ed., O'Reilly, 2002. (Unit III, IV, V)
3.   Herbert Schildt, "The Complete Reference: C#", Tata McGraw-Hill, 2004.
4.   Robinson et al, "Professional C#", 2nd ed., Wrox Press, 2002.
5.   Andrew Troelsen, "C# and the .NET Platform", A! Press, 2003.
6.   S. Thamarai Selvi, R. Murugesan, "A Textbook on C#", Pearson Education, 2003.

MC503   **MIDDLEWARE TECHNOLOGIES**   3   1   0   100   4

1. CLIENT / SERVER CONCEPTS   9

Client – Server – File Server, Database server, Group server, Object server, Web server .Middleware – General middleware – Service specific middleware. Client / Server Building blocks – RPC – Messaging – Peer – to- Peer.

2. EJB ARCHITECTURE   9

EJB – EJB Architecture – Overview of EJB software architecture – View of EJB – Conversation – Building and Deploying EJBs – Roles in EJB.

3. EJB APPLICATIONS   9

EJB Session Beans – EJB entity beans – EJB clients – EJB Deployment – Building an application with EJB.

4. CORBA   9

CORBA – Distributed Systems – Purpose - Exploring CORBA alternatives – Architecture overview – CORBA and networking model – CORBA object model – IDL – ORB - Building an application with CORBA.

5. COM   9

COM – Data types – Interfaces – Proxy and Stub – Marshalling – Implementing Server / Client – Interface Pointers – Object Creation, Invocation , Destruction – Comparison COM and CORBA – Introduction to .NET – Overview of .NET architecture – Marshalling - Remoting.

Total No of periods: 45

REFERENCE BOOKS

1. Robert Orfali, Dan Harkey and Jeri Edwards, "The Essential Client/Server Survival Guide", Galgotia Publications Pvt. Ltd., 2002. (Unit 1)
2. Tom Valesky,"Enterprise Java Beans",Pearson Education, 2002.(Unit 2 & 3)
3. Jason Pritchard,"COM and CORBA side by side", Addison Wesley,2000 (Unit 4 & 5)
4. Jesse Liberty, "Programming C#", 2nd Edition, O'Reilly Press, 2002. (Unit 5)

MC 506   **SOFTWARE DEVELOPMENT LAB**   0   0   3   100   1.5

Develop Software using CASE tools for the applications like :

1. Online railway reservation system

2. Payroll processing application

3. Inventory system

4. Automating the banking process

5. Software for game

6. Library management system

7. Create a dictionary

8. Text editor

9. Telephone directory

10. Create an E-Book of your choice

Software required:

- **Languages**: C/C++/Java/JSDK/Web browser.

- Any front end tool (like VB, VC++, Developer 2000) etc

- **Any backend tool** (Oracle, Ms-Access, SQL) etc.

- **Any CASE tool**

MC507   C# & .NET Frame work Lab   0 0 3 100

1. Programs using Branching, Looping.

2. Programs using Methods, Arrays, Strings.

3. Programs using Structures, Enumerations.

4. Programs using Inheritance.

5. Programs using Polymorphism.

6. Programs using Interfaces.

7. Programs using Operator overloading.

8. Programs using Delegates, Events, Errors and Exceptions.

9. Program to Build an Calculator widget
10. Programs Using Multi Module Assembly

11. Programs using application development on .net.

12. Programs using Web applications.

MC 508   **MIDDLEWARE LAB**   0   0   3   100   1.5

1. Create a distributed application to download various files from various servers using RMI

2. Create a Java Bean to draw various graphical shapes and display it using or without using BDK

3. Develop an Enterprise Java Bean for Banking operations

4. Develop an Enterprise Java Bean for Library operations

5. Create an Active-X control for File operations

6. Develop a component for converting the currency values using COM / .NET

7. Develop a component for encryption and decryption using COM / .NET

8. Develop a component for retrieving information from message box using DCOM / .NET

9. Develop a middleware component for retrieving Stock Market Exchange information using CORBA

10. Develop a middleware component for retrieving Weather Forecast information using CORBA

ELECTIVE – II, III

General Electives

MC E08 Data Warehousing and Data Mining

MC E09 Component Based Technologies

MC E10 Enterprise Resource Planning

MC E11 Software Agents

MC E12 Supply Chain Management

MC E13 IT Infrastructure Management

MC E14 Information Security

MC E15 Information System Audit

Banking Technology

MC E16 Banking Technology and Management

MC E17 Merchant Banking and Security Market

MC E18 Investment Banking

MC E19 International Banking

Call Center Management

MC E20 Customer Relationship Management

MC E21 Business Process Outsourcing

MC E22 Call Center Technology

MC E23 Stress Management

Trading and Equity Management

MC E24 Portfolio Management

MC E25 Risk Management

Health Care Management

MC E26 Health Care Information Systems

MC E27 HRM in Health Care Services

MCE08   DATA WAREHOUSING AND DATA MINING

1. INTRODUCTION   **9**
Relation to Statistics, Databases- Data Mining Functionalities-Steps In Data Mining Process-Architecture Of A Typical Data Mining Systems- Classification Of Data Mining Systems - Overview Of Data Mining Techniques.

2. DATA PREPROCESSING AND ASSOCIATION RULES   **9**
Data Pre-processing-Data Cleaning, Integration, Transformation, Reduction, Discretization Concept Hierarchies-Concept Description: Data Generalization And Summarization Based Characterization- Mining Association Rules In Large Databases.

3. PREDICTIVE MODELING   **9**
Classification and Prediction: Issues Regarding Classification And Prediction-Classification By Decision Tree Induction-Bayesian Classification-Other Classification Methods-Prediction-Clusters Analysis: Types Of Data In Cluster Analysis-Categorization Of Major Clustering Methods: Partitioning Methods –Hierarchical Methods

4. DATA WAREHOUSING   **9**
Data Warehousing Components -Multi Dimensional Data Model- Data Warehouse Architecture-Data Warehouse Implementation- -Mapping the Data Warehouse to Multiprocessor Architecture- OLAP.-Need- Categorization of OLAP Tools.

5. APPLICATIONS   **9**
Applications of Data Mining-Social Impacts Of Data Mining-Tools-An Introduction To DB Miner-Case Studies-Mining WWW-Mining Text Database-Mining Spatial Databases.

Total No of Periods: 45

REFERENCES

1. Jiawei Han, Micheline Kamber, "Data Mining: Concepts and Techniques", Morgan Kaufmann Publishers, 2002.
2. Alex Berson,Stephen J. Smith, "Data Warehousing, Data Mining,& OLAP", Tata McGraw- Hill, 2004.
3. Usama M.Fayyad, Gregory Piatetsky - Shapiro, Padhrai Smyth And Ramasamy Uthurusamy, "Advances In Knowledge Discovery And Data Mining", The M.I.T Press, 1996.
4. Ralph Kimball, "The Data Warehouse Life Cycle Toolkit", John Wiley & Sons Inc., 1998.
5. Sean Kelly, "Data Warehousing In Action", John Wiley & Sons Inc., 1997.

MCE09   COMPONENT BASED TECHNOLOGY

1. INTRODUCTION   **8**

Definition - Industrialization of software development - CBD drivers and benefits - Technology evolution - Components and network computing

2. FUNDAMENTALS   **10**

Basic concepts of CBD - Scenarios for CBD - Evolution or revolution - Build,find and use components and objects.

3. MODELS   **10**

Basic concepts of object models - Components and interfaces - Working with interfaces - Component and interface modeling - Specification models - domain modeling - Describing classes - Patterns and frameworks.

4. Using CBD   **9**

Categorizing & deploying components - CORBA, DCOM.

5. FRAMEWORKS   **8**

Class libraries - Encapsulated components - Software frameworks - Pre - built applications.

                                            Total No of Periods: 45

REFERENCES

1. Kuth Short, "Component Based Development and Object Modeling", Sterling software,1997.

2.Clemens Szyperski, "Component software - Beyond object – Oriented programming", Addison - Wesley, 2000.

MCE10   ENTERPRISE RESOURCE PLANNING

1.INTRODUCTION TO ERP   9

Integrated Management Information Seamless Integration – Supply Chain Management – Integrated Data Model – Benefits of ERP – Business Engineering and ERP – Definition of Business Engineering – Principle of Business Engineering – Business Engineering with Information Technology.

2.BUSINESS MODELLING FOR ERP   9

Building the Business Model – ERP Implementation – An Overview – Role of Consultant, Vendors and Users, Customisation – Precautions – ERP Post Implementation Options-ERP Implementation Technology –Guidelines for ERP Implementaion.

3.ERP AND THE COMPETITIVE ADVANTAGE   9

ERP domain MPGPRO – IFS/Avalon – Industrial and Financial Systems – Baan IV SAP-Market Dynamics and Dynamic Strategy.

4.COMMERCIAL ERP PACKAGE   9

Description – Multi-Client Server Solution – Open Technology – User Interface-Application Integration.

5.ARCHITECTURE   9

Basic Architectural Concepts – The System Control Interfaces – Services – Presentation Interface – Database Interface.

                                                    Total No of Periods: 45

REFERENCES

1. Jose Antonio Fernandz, "The SAP R/3 Handbook", TMH, 1998.
2. Vinod Kumar Garg and N.K.Venkita Krishnan, "Enterprise Resource Planning Concepts and Practice", PHI, 1998.

MCE11   *SOFTWARE AGENTS*

1. AGENT AND USER EXPERIENCE   9

Interacting with Agents - Agent From Direct Manipulation to Delegation - Interface Agent Metaphor with Character - Designing Agents - Direct Manipulation versus Agent Path to Predictable

2. AGENTS FOR LEARNING IN INTELLIGENT ASSISTANCE   9

Agents for Information Sharing and Coordination - Agents that Reduce Work Information Overhead - Agents without Programming Language - Life like Computer character - S/W Agents for cooperative Learning - Architecture of Intelligent Agents

3. AGENT COMMUNICATION AND COLLABORATION   9

Overview of Agent Oriented Programming - Agent Communication Language - Agent Based Framework of Interoperability

4. AGENT ARCHITECTURE   9

Agents for Information Gathering - Open Agent Architecture - Communicative Action for Artificial Agent

5. MOBILE AGENTS   9

Mobile Agent Paradigm - Mobile Agent Concepts -Mobile Agent Technology - Case Study: Tele Script, Agent Tel

Total No. of Periods: 45

REFERENCES

1. Russel & Norvig, " Artificial Intelligence: A Modern Approach ", Prentice Hall, 2nd Edition, 2002
2. Joseph P.Bigus & Jennifer Bigus, "Constructing Intelligent agents with Java: A Programmer's Guide to Smarter Applications ", Wiley, 1997.
3. Jeffrey M.Bradshaw," Software Agents ", MIT Press, 2000. (Unit 1,2,3 & 4)
4. William R. Cockayne, Michael Zyda, "Mobile Agents", Prentice Hall, 1998 (5th unit)

MCE12   SUPPLY CHAIN MANAGEMENT

1. BASIC CONCEPTS   9

Introduction to supply chain management (SCM) – concept of SCM – Components of SCM, an overview – features of SCM – strategic issues in SCM – Systems View - SCM current scenario – value chain management and customer relations management.

2. INTERFACES WITH OTHER DISCIPLINES   10

Marketing and Supply Chain Interface – Customer focus in SCM – Demand planning Purchase planning – Make or Buy decision – Indigenous and global sourcing – Development and management of suppliers – legal aspects of buying – cost management – negotiating for purchasing/subcontracting – purchase insurance – evaluation of purchase performance (performance indices).Inventory management.- Finance and Supply Chain Interface. Financial impact of inventory.

3. MANUFACTURING AND WAREHOUSING   9

Manufacturing scheduling – Manufacturing flow system – work flow automation – Flexibility in manufacturing to achieve dynamic optimization. Material handling system design and decision. Warehousing and store keeping – strategies of warehousing and storekeeping – space management.

4. LOGISTICS MANAGEMENT   8

Logistics management – Role of logistics in SCM – Integrated Logistics management – transportation design and decision – multi modalism – third party logistics services and providers – facilities management (port/airport.ICD's) channels of distribution – logistics and customer service.

5.INFORMATION TECHNOLOGY AND SCM   9

Information technology and SCM – EDI, ERP, Internet and Intranet, E-Commerce, Bar coding, Telecommunication Network, Advanced planning system, Decision support models for Supply Chain Management, Artificial Intelligence for SCM- Best practice in supply chain management – organizational issues to implement SCM.

Total No. of Periods: 45

REFERENCES

1. Donald J.Bowersox & David J.Closs, "Logistical Management", Tata McGraw- Hill Editions, New Delhi, 2000.
2. David Simchi-Levi, "Designing and managing the supply chain", Tata McGraw-Hill Editions, New Delhi, 2000
3. B.S.Sahay, "Supply chain management for global competitiveness", Macmillan India Limited, 2000.

MCE13   IT INFRASTRUCTURE MANAGEMENT

1. INFRASTRUCTUE MANAGEMENT OVERVIEW   9

Infrastructure Management Overview Definitions, Infrastructure management activities, Evolutions of Systems since 1960s (Mainframes – to - Midrange-to-PCs-to-Client-server computing-to-New age systems) and their   management, growth of internet, current business demands and IT systems issues, complexity of today's computing environment, Total cost of complexity issues, Value of Systems management for business.

2. INFRASTRUCTURE MANAGEMENT FACTORS   9

Preparing for Infrastructure Management Factors to consider in designing IT organizations and IT infrastructure, Determining customer's Requirements, Identifying System Components to manage, Exist Processes, Data, applications, Tools and their integration, Patterns for IT systems management, Introduction to the design process for information systems, Models, Information Technology Infrastructure Library (ITIL).

3. SERVICE DELIVERY PROCESS   9

Service Delivery Processes Service-level management, financial management and costing, IT services continuity management, Capacity management, Availability management.

4. SERVICE SUPPORT PROCESS   9

Service Support Processes Configuration Management, Service desk. Incident management. Problem management, Change management, Release management.

5. **STORAGE AND SECURITY MANAGEMENT   9**

Storage and Security Management Introduction Security, Identity management, Single sign-on, Access Management, Basics of network security, LDAP fundamentals, Intrusion detection, firewall, security information management Introduction to Storage, Backup & Restore, Archive & Retrieve, Space Management, SAN & NAS, Disaster Recovery, Hierarchical space management, Database & Application protection, Bare machine recovery, Data retention

Total No of Periods : 45

REFERENCES

1. Jan Van Bon, Van Haren," Foundations of IT Service Management: based on ITIL"

2. Floyd Piedad, Michael Hawkins,"Availability: Design, Techniques, and Processes", Prentice Hall, 2000

3. Harris Kem, Stuart Gaiup, Guy Nemiro, "IT Organization: Building a Worldclass Infrastructure", Publisher: Prentice Hall, 2000

4. Rich Schiesser, "IT Systems Management: Designing, Implementing, and Managing World-Class Infrastructures", Prentice Hall PTR; 2001

MCE14   INFORMATION SECURITY

1.INTRODUCTION   **9**

History, What is Information Security?, Critical Characteristics of Information, NSTISSC Security Model, Components of an Information System, Securing the Components, Balancing Security and Access, The SDLC, The Security SDLC.

2.SECURITY INVESTIGATION   **9**

Need for Security, Business Needs, Threats, Attacks, Legal, Ethical and Professional Issues

3.SECURITY ANALYSIS   **9**

Risk Management: Identifying and Assessing Risk, Assessing and Controlling Risk

4.LOGICAL DESIGN   **9**

Blueprint for Security, Information Security Poicy, Standards and Practices, ISO 17799/BS 7799, NIST Models, VISA International Security Model, Design of Security Architecture, Planning for Continuity

5.PHYSICAL DESIGN   **9**

Security Technology, IDS, Scanning and Analysis Tools, Cryptography, Access Control Devices, Physical Security, Security and Personnel

Total No of Periods : 45

REFERENCES

1. Michael E Whitman and Herbert J Mattord, "Principles of Information security", Vikas Publishing House, New Delhi, 2004

2.   Micki Krause, Harold F. Tipton, "Handbook of Information Security Management", Vol 1-3 CRC Press LLC, 2004.

3.   Matt Bishop, "Computer Security Art and Science", Pearson/PHI, 2005.

MCE15 INFORMATION SYSTEM AUDIT

1. INTRODUCTION   **9**

Basis of computing systems – Identifying computer systems – Information system audit program – Information systems security policies

2. AUDITING SERVICES AUDITING   **9**

Auditing services organization application – Assessing the financial stability vendor – examining vendor organization contracts – examining accounting treatment of computer

3. PHYSICAL SECURITY   **9**

Physical security – Physical locks – security guards – video surveillance cameras – general emergency and detection controls – heating – insurance coverage – emergency power – backup system

4. LOGICAL SECURITY   **9**

Logical security – logical security design – User ID – Remote access control – system security administration – wire transfer fraud

5. INFORMATION SYSTEMS   **9**

Information system operations – control self – assessment – Internal control frameworks – encryption and cryptography

Total No of Periods:45

REFERENCE

1. Jack J. Champlain**, "**Auditing Information Systems (2nd ed.)", Wiley, 2003

2. Michael P. Cangemi, T. S., "Managing The Audit Function: Corporate Audit Department Procedures Guide", 3rd Edition 2003

3. Ron Weber, "Information System Control And Audit", (United States Edition) 1st Edition , Prentice Hall

MCE16 BANKING TECHNOLOGY AND MANAGEMENT

1. INTRODUCTION TO BANKING 9

An Overview of banking - Evolution of money and banking

2. BANKING FUNDAMENTALS 9

Types of Customers – Types of Deposits - Account Opening - Banker customer relationship

3. BANKING OPERATIONS 9

Account Operations – Cash operations

4. SERVICE MANAGEMENT 9

Cheque Collection Services – Payment and remittance services – Cash Management Services – Bills Collection Services

5. OTHER SERVICES 9

Inter Bank settlements – Financial services – Distribution – mutual funds – Insurance – collection -

Total No of Periods: 45

REFERENCES

1. M.N.Gopinath," Banking Principles and Operations", First Edition, Snow White Publications, India.

2. Vadlamani Ravi ,"Advances in Banking Technology and Management: Impacts of Ict And Crm", Information Science Publishing.

MCE17   MERCHANT BANKING AND SECURITY MARKET

1. MERCHANT BANKING   9

Origin-Merchant banks-Regulation of merchant banking activity-nature and activities of merchant banking-Merchant bankers regulations.

2. CAPITAL MARKET   9

Instruments-Traditional and Emerging (ECB, ADR, GDR) Capital Marketing in India-Operations in Primary Markets-Instruments involved-Role of SEBI.

3. SECONDARY MARKETS   9

Stocks Exchanges in India-National Stock Exchange (NSE)—Stock Holding Corporation of India (SHCIL)-Share Trading- Introduction to Derivatives and Commodities-Scrip less Trading –E-Trading-Index/Futures Trading –Share Lending Scheme-Book Building –Buy back of shares-Mergers & Acquisition – Regulations.

4. MONEY MARKET   9

Nature and role of Money market in India – Instruments in Money Market viz, CPs, CDs, Bill of exchange, ICDs, Treasury bill – Role of DFHI/STCI in Money Market – ECBs..

5. SECURITIES   9

Nature and kinds of securities-Debentures-Warrants-Debt securities-Pricing of Bonds-Equity shares-Listed shares-Preference shares.

Total No of Periods: 45

REFERENCES

1. M.Y. Khan, "Indian Financial Services"
2. V. A. Avdhani ,"Marketing of Financial Services"
3. Kohak, "Advance Financial Management"
4. H.R.Machiraju, " Merchant Banking-Principles and Practice", Second Edition, New Age International (p) Limited.

MCE18   INVESTMENT BANKING

1. INVESTMENT BANKING   9

Investment Banking-Global Market Integration-Attracting Corporate clients-Evaluating the advice of investment bankers.

2. RAISING CAPITAL   9

Initial Public Offerings (IPOs)-Private placements-Real estate finance-Venture capital financing

3. TRANSACTIONAL ACTIVITIES   9

Sales and Trading-Leverage Buyouts-Mergers and acquisitions-Investment Management-Specialized financial instruments

4. COMMERCIAL BANKS   9

Economics of Brokerage-Bank Uniqueness-Investment banking-commercial banks in roads

5.SECURITIES IN MARKETS   9

Securities Markets and Investment banking in the UK-Investment banking in Japan-Investment dealing in Canada-Securities firms in Canada,

Total No of Periods: 45

REFERENCES

1. Williamson , J. P " Investment Banking Handbook", New York : Wiley, 1986.

2. *Subramanyam P "Investment Banking:concepts,Analysis & Cases", Tata Mcgraw Hill*

3. Yogesh Maheshwari , :Investment Management" , Prentice Hall of India Pvt Ltd.

4. Dow Jones Irwin,"Inside Investment Banking", Block E, Homewood, ILL . 1986

5. Anthony Saunders "Financial Institution Management: A modern perspective".

MCE19   INTERNATIONAL BANKING

1. BANKING AND THE MONEY MARKETS   9
History of money-Functions of money-Money in the modern economy- The development of banking Origins-The creation of credit-Development of the present system-Banking in the future- Functions of the central bank-Relationships with government-Intervention by central banks on the foreign exchange markets-The Bank of England-The US Federal Reserve system-The Bank of Japan-The European Central Bank.

2. THE BANKING SYSTEM   9
Commercial banks-Clearing banks-Gilt-edged market-makers-Investment banks-The US banking system-The EU's financial system-The Japanese financial system-Interest rates and borrowing-Control of the interest rate by the central bank-The relationship between interest rates and exchange rates.

3. BOND AND EQUITY MARKETS   9
Negotiability of instruments-Non-bank funding-Securities-Longer maturities-Basic instruments and terminology-Debt instruments-Interest-Risk and guarantees-Status of the debt-Governing law-Bonds or notes-Bond variations-Convertible bonds-Bonds with equity warrants-Private sector companies-Banks-Corporate bonds-Domestic bonds-Foreign bonds Eurobonds

4. VALUING A COMPANY   9
Introduction-Financial structure issues-Cost of debt versus cost of equity-Asset valuation Net asset value-Advanced earnings valuation-Shareholder value-Calculating economic value added (EVA)-Issuing shares-Rights issues-Strategic issues-Acquisition for growth-Financial structure

5. PRINCIPLES OF LENDING   9
Types of lending-Temporary or seasonal finance-Working investment finance-Cash flow Lending-SWOT analysis-Understanding the financial statements-How the statements relate to each other-The income statement.

                                Total No of Periods: 45

REFERENCES

1. Euro money Institutional Investor."Fundamentals of International Finance" 2nd Edition,
   http://www.researchandmarkets.com/reports/5289/

2. Rupnarayan Bose," Fundamentals of International Banking" , Macmillan
   Publishers India, 2007.

MC E20 CUSTOMER RELATIONSHIP MANAGEMENT

1.DATABASE MARKETING STRATEGY   **9**

CRM, Database Marketing, and Customer value – Overview – The link between CRM
and Database Marketing – The importance of Customer value – Changes with respect to
consumers – Changes with respect to marketplace – Changes with respect to Storage
technology – Changes with respect to marketing function – Implications

2.STRATEGIC CRM   **9**

Overview – The evolution and Growth of CRM – Strategic CRM Vs Functional CRM –
CRM Implementation Options - The components of Strategic CRM – Developing a CRM
Strategy – Case Study

3.IMPLEMENTING THE CRM STRATEGY   **9**

Overview – Elements of a CRM System – Return On Investment of CRM-CRM
Implementation – Introduction to Customer-based Marketing Metrics – Overview –
Traditional Marketing Metrics – Primary Customer-based Metrics

4.DATA MINING AND CRM   **9**

Overview – The Need for Data Mining – The Business value of Data Mining – The Data
Mining Process-Campaign Management – Overview-Campaign Planning and
Development

5.CRM APPLICATIONS   **9**

Applications of Database Marketing in B-C and B-B scenarios – Customer Value – A
metric – Application of the Customer Value Framework to Marketing Decisions-Impact
of CRM on Marketing Channels

                                         Total No of Periods: 45

REFERENCES

1. V.Kumar,Werner J.Reinartz, "Customer Relationship Management – A
   Databased Approach" Wiley India Edition
2. Simon Knox, Stan Maklan, Adrian Payne, Joe Peppard,Lynette Ryals, "Customer
   Relationship Management – Perspectives from the Marketplace" , Elsevier
   Publications
3. John W Gosney; Thomas P Boehm, "Customer Relationship Management
   Essentials",Publisher Prentice-Hall Year 2001
4. Kristin Anderson; Carol Kerr,"Customer relationship management" Publisher
   Tata McGraw-Hill Publishing Company Limited -Year 2002

5. Shainesh G, Jagdish N Sheth , "Customer relationship Management : A strategic perspective",Publisher Macmillan India Limited – Year 2006

MCE21   BUSINESS PROCESS OUTSOURCING

1.WHAT OUTSOURCING IS AND WHY IT IS IMPORTANT   9

Introduction – Focus on core Business – The IS trends – The Outsourcing principles – Outsourcing Market – Treatment approach – Typical computing Environments – Client – Server Definition – Key client –Server concepts – Other related concepts – Using SQL – Distributed Computing Environment – The Client-Server Market – Communication Systems in Place

2.OUTSOURCING PRINCIPLES   9

Overview – Generic Modeling – A factor Analysis of Outsourcing-A Success factor model for Outsourcing Assistance – Contracting model for Outsourcing

3.OUTSOURCING OF DATA PROCESSING FUNCTIONS   9

Overview – Reasons to outsource – the outsourcing Decision Process – Selecting an Outsourcer – Managing the Outsourcers – Transformational Outsourcing / Strategic Planning – Outsourcing Vendors – Dealing with Outsourcing Vendors

4.OUTSOURCING OF TELECOMMUNICATION AND LAN FUNCTIONS   9

Overview – Telecommunication Outsourcing – Decision Making Approach – Maintenance Contracts – Outsourcing Network Management – Communication Outsourcing Vendors – Outsourcing Global Telecommunications –Outsourcing LAN functions

5.TRANSFORMATIONAL OUTSOURCING   9

Overview – The Business Needs – Transformational Outsourcing Components   - Selecting a Transformational Outsourcing Supplier – Case Study

Total No of Periods: 45

REFERENCES

1. Daniel Minoli, "Analyzing Outsourcing – Reengineering Information and Communication Systems",Mc-Graw Hill Publications
2. Saxena KBC; Sangeeta Shah Bharadwaj, "Business process outsourcing for strategic advantage", Publisher Excel Books - Edition: - Year 2007

MC E22 CALL CENTER TECHNOLOGY

1.INTRODUCTION   **9**

Objective and Scope of Call Center Management – Its employment opportunity focusing to the National and Global Scenario – Call centre Concepts – International and Domestic Call Centers – Centralized and Decentralized Call Centers – Call Centre Terminologies – Advantages of Call Centre – House Keeping and Maintenance of Call Centre – Environment

2.CUSTOMER RELATIONSHIP MANAGEMENT   **9**

Customer's Care Skills - Communicating clearly, Avoiding Jargon and Slang, Greeting early asking permission to hold respecting customer on hold, explaining transferring, Listening to problems – Expressing concern – Apologizing – Committing to Help – Clarifying the details summarizing and confirming providing total solution checking satisfaction

3.CONFLICT MANAGEMENT (HANDLING UPSET CUSTOMER)   **9**

Listening sympathetically, apologizing- taking responsibility now, outlining the plant to help gaining customer agreement - Managing Anger and Abuse - Listening positively, reducing anger by apologizing - Not taking personally- staying calm, be responsive, outlining the plan to help, agreeing on solution

4.TIME MANAGEMENT – CONTROLLING CALL TIME   **9**

Maintaining patience- responding and moving on- asking questions and offering help- summarizing- interrupting politely, using by name, sticking to rules - Staying positive and calm- keeping motivated, maintaining professionalism- contributing to the team and organization. –Tele Marketing Skills - On line advertisement and enquiry, getting orders- supplying items, getting payment etc. -Sales and Marketing Philosophy, Internal and external customer, Delighting and Holding Customer

5.SKILLS   **9**

Preparing in advance- Listening and question   asking skill- Concentration on performance not in personality issues- be specific about success and future-agreeing on objectives- not imposing your ideas- not to be destructive- follow up any issues , using past to shape future etc. - Listening Comprehension and Public Speaking -Accent Training

                                                                  Total No of Periods: 45

REFERENCES

1. Kris Carole, "Call Center Communication", East West Books Publishers – 2003
2. Arjun Raina, "Speak right for a call centre job", Viva Books Year 2004
3. Arjun Raina ,"Speak right for a call centre job", Penguin Books Publishers - Year 2004

MC E23   STRESS MANAGEMENT

1.INTRODUCTION   9

Stress and its effects – Mind-Body Medicine Principles and Psycho-immunology – Emotional intelligence – Serenity Strategy, Resilience – Emotional Intelligence – Emotion and Perception Rules – Emotion Patterns and Perception Rules – Emotional Intelligence Principles

2.RELAXATION TECHNIQUES   9

Relaxation Techniques – Jacobson's Technique – Relax-Centering Prayer (Center) – The scan technique used in the Stress Management - Dialectical Behaviour Theory - mindfulness Skills – Distress Tolerance Skills – Accept – Distract – Vision – Mindful (Mcbee pattern)

3.MOTIVATION   9

Motivation and Affect – Cognitive factors in Motivation – Motivation and Attribution – Emotion Regulation Skills – Emotions conflict – Meaning-Making Skills – Specific paths – Affirm / Rational Emotive Image – Communication Skills

4.STRATEGIC BEHAVIOUR   9

Strategic Behaviour – Thought –Field Therapy – The emotional freedom technique – McBee patterns – Relief – Cognitive skills – Shift – Neuro- Linguistic Programming – Inner State Conditioning – Sub modality Patterns – The Swish Patterns – Positive Pshycology

5.COGNITIVE STRATEGIES   9

Cognitive Strategies – Decision making – Motivation – Strategies of Genius – Meta-states – Resilience – Magnanimity – Proactivity – Inner peace – Uninsult – Forgive – Cognitive De-stressing – Reframe – Sleight of Mouth Techniques –Self concept – Self Esteem

                                                          Total No of Periods: 45

REFERENCES

1. *Wolfgang Linden, "Stress Management - From Basic Science to Better Practice", Sage Publications Inc. – 2005*
2. *Dr. Jonathan C Smith, "Stress Management – A comprehensive Handbook of Techniques and Strategies", Springer Publishers*
3. *Allen Elkin, "Stress Management for Dummies" , Paperback*
4. *Ajanta Chakravarty, "Stress management", Publisher Rupa and Company – 2002*
5. *Meena Nanda, "A Handbook on stress management", Publisher Indialog Publications Private Limited -Year 2006*

MC E28 E E-learning Technology

1. Introduction

What is e-learning – e-learning evolution – Advantages and Disadvantages of e-learning – Instructional design models for e-learning – Applying user-centered design to e-learning – rapid e-learning.

2. Keeping the e-learning strategy forward

Learning strategy – Process for developing the e-learning strategy – Doomed to failure – Keeping focused on the strategy – Instructional strategies for e-learning.

3. Delivering e-learning & e-learning evaluation

Delivering e-learning – Instructional game characteristics – Educational podcasting – Gaming at work – Delivering e-learning synchronously – e-learning education – Four levels of evaluating learning – Learning analytics – Evaluation models.

4. Web standards

What are Web standards? – Who is involved in web standards? Resources for guidance on web standards – How are web standards used in education – Web standards for designers – Validators – W3C keeping it simple.

5. e-learning Tools

E-learning tools – What is e-learning tool? – E-learning authoring tools – Wikis and e-learning

References :
1. **The e-Learning Guild's Handbook of e-Learning Strategy** Foreword by Marc Rosenberg Chapters by Kevin Moore, Frank Hanfland, Patti Shank, Lisa Young, Lance Dublin, Ryan Watkins, Michael Corry Bill Brandon, Editor Sponsored by Compilation Copyright ©2007 by The e-Learning Guild.
2. **E-Learning Concepts and Techniques** by Bloomsburg University of Pennsylvania's Department of Instructional Technology students and guest authors.
3. **The Insider's Guide to Becoming a Rapid E-Learning Pro** - Tom Kuhlmann

MCE24   PORTFOLIO MANAGEMENT

1. MONEY AND CAPITAL MARKETS   8

Trends of savings and financial flow, the Indian Money market, introduction, characteristics of money market , need for money market, major segments of money market, money market instruments and Capital market, introduction, primary market and secondary market, recent capital market reforms, new capital issue, instruments and market participant

2. STOCK EXCHANGES   10

Nature and functions of stock exchange in India,organizational structure of the secondary marlet,stock exchanges and financial development in India, listing of securities in stock exchange-OTCEI market-New Issue Market- concepts and function, underwriting, role of new issue market ,mechanics of trading in stock exchanges.

3. FUNDAMENTAL ANALYSIS   8

Economic Analysis - Economic forecasting and stock Investment Decisions - Forecasting techniques. Industry Analysis - Industry classifications. Economy and Indus try Analysis. Industry life cycle - Evaluating Industry relevant factors - External industry information sources. Company Analysis : Measuring Earnings - Forecasting Earnings - Applied valuation techniques - Graham and Dodds investor ratios.

4. TECHNICAL ANALYSIS   10

Technical Analysis: Fundamental Analysis Vs Technical Analysis - Charting methods - Market Indicators. Trend - Trend reversals -   Patterns - Moving Average - Exponential moving Average - Oscillators - ROC - Momentum - MACD - RSI - Stoastics.Factors influencing share prices, forecasting stock prices - Efficient Market Theory - Risk and Returns.

5. PORTFOLIO ANALYSIS   9

Portfolio theory- Markowitz theory, Sharpe index model,CAPM.Portfolio investment model- basic principles, planning, implementation, portfolio objective and types. Portfolio evaluation – measures of return, formula plans,types of formula plans.Risk adjusted measure of performance – Sharpe's measure, Treynor's measure and Jensen's measure

Total No. of Periods: 45

REFERENCES

1.   Punithavathy Pandian, "Security Analysis & Portfolio Management", Vikas Publishing House Pvt. Ltd., 2001.
2.   V.A.Avadhani , "Securities Analysis & Portfolio Management" Himalay Publishing House, 1997.
3   V.K.Bhalla, "Investment Management", S.Chand & Company Ltd, New Delhi 2003.

MC E25 RISK MANAGEMENT

1. INTRODUCTION   9

Derivative markets and instruments, some important concepts in financial and derivative markets, fundamental linkages between spot and derivative markets, the role of derivative markets, criticisms ,misuses, sources of information on derivatives

2. OPTIONS   9

The Development of Options Markets, Organized Options Trading, Option Traders, Mechanics of trading , types, Principles of option Pricing ,Option Pricing Models-Binomial Model, Black Scholes Model, Basic Option Strategies

3. FORWARDS AND FUTURES   9

The development of forward and future Markets, Organized Future trading, Exchanges, traders, The mechanics of future trading, Types of futures Contracts, Properties of Forward and futures Prices, Forward and Futures Pricing Model, Pricing options on futures, Forward and Futures Hedging Strategies

4. SWAPS AND ADVANCED TOPICS   9

Interest rate swaps, currency swaps, equity swaps, beyond simple interest rate swaps, case study forward rate agreements, interest rate options, Interest rate swapping and Forward Swaps

5. TECHNIQUES AND APPLICATIONS   9

Practice Risk Management,Managing market risk, managing credit risk,managing risk in an organization.

Total No. of Periods: 45

REFERENCES

1. Don M. Chance, "An introduction to Derivatives & Risk Management" sixth Edition ,Thomson South Western
2. Rene M. Stulz "Risk Management & Derivatives", Thomson South Edition

MCE30 HEALTH CARE INFORMATION SYSTEMS

1. PLANNING AND DEVELOPING AN IT STRATEGY   **7**

Introduction - Mission of IT in Health Care: Creating a System - Managing the IT Strategic Planning -Process - Strategies in Consulting for the 21st Century - Baylor Health Care - Clarian Health care.

2. PREPARING FOR ORGANIZATIONAL CHANGE   **9**

Informatics in Health Care: Managing Organizational Change - The Role of Ethics in IT Decisions - Cases in Redesign - Memorial Hermann Healthcare System: Redesign and Implementation of a Multifacility - Clinical Information System - UPMC Health System.

3. TRANSFORMATION   **9**

IT: Transition Fundamentals in Care Transformation -The Role of the CIO - Northwestern Memorial Hospital, Chicago: Patients First from the Ground Up - The Jewish Home and Hospital Lifecare System - NYC.

4. PATIENT-CENTERED TECHNOLOGIES   **10**

Patient Outcomes of Health Care - Six Sigma Excellence - Electronic Health Record - Interviewing Patients with a Computer - Nursing Administration: A Growing Role in Systems Development - Computer-Enhanced Radiology -   Information Technology and the New Culture of Patient Safety - A Component Based Clinical Information and Electronic Health Record

5. OUTLOOK ON FUTURE TECHNOLOGIES   **10**

Technologies in Progress - Evidence-Based Medicine - Aligning Process and Technology - Clinical Decision Support Systems - Quality Information and Care - Role for Health Information Systems - Clinical Practice - Connecting the Community for Better Health.

Total No of Periods: 45

REFERENCES

1. Karen A. Wager, Frances Wickham Lee, John P. Glaser, ''Managing Health Care Information Systems: A Practical Approach for Health Care Executives'', Jossey-Bass, 2005

2. Ball, Marion; Weaver, Charlotte A.; Kiel, Joan M. (Eds.) ,''Healthcare Information Management Systems Cases, Strategies, and Solutions Series: Health Informatics'', 3rd ed., Springer Berlin Heidelberg New York, 2004

MC E31 HRM IN HEALTH CARE SERVICES

1 INTRODUCTION   **9**

History, Growth and Classification of Hospitals in India- Nature and scope of a hospital-definition of hospital -History of Indian hospitals- Health committees appointed by the government-changes in hospital organization- Health services through five year plans.

2 NATIONAL HEALTH POLICY   **9**

Our Heritage-Progress Achieved – Medical and health education- Need for Providing primary health care - Re-orientation of the existing health personnel- Problems requiring urgent attention- Health education- Management information system - Health insurance -Health legislation- Medical research- Organisational policy & structure.

3 HEALTH SERVICE ORGANISATIONS   **9**

Professional health service organisations - professional organisations, Creating reliable &Efficient Hospitals- inter professional relations-chance management in health service provision-leadership for the future.

4. HEALTH SERVICE MANAGEMENT   **9**
Strategic Management Principles- The middle manager in health service provision-Managerial Effectiveness- Motivation for health professional managers.

5. STRATEGY DEVELOPMENT IN THE HEALTH SERVICE   **9**

Human relations in hospitals -Strategic consensus of health service strategy- An integrative approach to strategic management in the health services.

                                  Total No of Periods: 45

REFERENCES

1. R.C Goyal, "Human Resource Management in Hospitals ", 3rd Edition, EE Edition

2. Marie Carney, "Health Service Management" ,, EE Edition