



ANNA UNIVERSITY: : CHENNAI - 25

FACULTY OF MANAGEMENT SCIENCES

**Approved Special Electives for
M.S. / Ph.D. Degree Programs
(upto 17th AC 27.04.2012)**

ANNA UNIVERSITY :: CHENNAI – 600 025.

SPECIAL ELECTIVES FOR FACULTY OF MANAGEMENT SCIENCES

COURSE CODE	COURSE TITLE	L	T	P	C
FB 1911	Emotional Intelligence	3	0	0	3
FB 1912	Shipping Business Management	3	0	0	3
FB 1913	International economics	3	0	0	3
FB 1914	Multivariate Statistical Analysis	3	0	0	3
FB 1915	Behavioral Finance	3	0	0	3
FB 1916	Experimental Methods For Employee Performance	3	0	0	3
FN 9001	Fuzzy Logic Neural Network, Genetic Algorithm and its Applications in Management	3	0	0	3
FN 9002	Retail Banking	3	0	0	3
FN 9003	Corporate Social Responsibility	3	0	0	3
FN 9004	Higher Education Policy and Management	3	0	0	3
FN 9005	Intelligent Systems for Business Applications	3	0	0	3
FN 9006	Optimization Techniques for Management	3	0	0	3
FN 9007	Organizational Effectiveness and Performance management	3	0	0	3

FB1912 SHIPPING BUSINESS MANAGEMENT 3 0 0 3**UNIT I INTRODUCTION 9**

Total and Patterns of trade- Shipping Business-Definition. Demand for Shipping: Demand for sea transport-Factors influencing the demand for shipping services, Competition from within the industry and from other modes of transport modes, Quality assurance systems.

UNIT II SHIPPING BUSINESS SECTORS-CHARTERING 9

Dry Cargo Chartering: Role of the broker; Relationship with Ship Owners and Charterers, the market and its operation.

Tanker Chartering: Distinctive features of the market, Brokers ,Owners and Charterers, Use of world Scale.

UNIT III SHIPPING BUSINESS SECTORS-OPERATIONS AND MANAGEMENT 9

Ship Operation and Management: The need for Ship Managers, In-House or Independent-Services offered-including total, commercial, technical Management, Crewing Agencies.

Port Agency: Tramp and Tanker Agents-Scope of work, Relationship with Ship owner and Charterer, Supervisory / Protecting Agents.

Liner Agency: In-House or Independent, Types of Appointment, Range of responsibilities, Relationship with Liner Operators, Exporters, Shippers, Forwarders, NVOCC'S.

UNIT IV CONTAINERISATION, INTERMODAL TRANSPORT AND LOGISTICS 9

The Concept of unitization and intermodalism. Container Types and Terminology, Non-Port Depots, Inland Haulage; Carrier/Merchant Haulage, Feeder Services, Container Management-Owning/Leasing, Repairs and Interchange.

Freight Forwarders and Non-Vessel Operating Carriers, Agency role and Carrier Role, Multi Modal Transport, Logistics and Supply Chain Management.

UNIT V SHIPPING ORGANISATIONS – ROLE AND CONTRIBUTIONS. 9

Ship Owner Organisations: INTERCARGO, INTERTANKO,Baltic and International Maritime Council(BIMCO),International Chamber of Shipping, National Owners association.

Brokers and Agents Organisation: Institute of Chartered Ship Brokers, The Baltic Exchange, Federation of National association of Ship Brokers and Agents(FONASBA), International federation of forwarding agents association(FIATA), Case Studies.

TOTAL: 45 PERIODS**REFERENCES:**

1. Malcolm Willingale, Ship Management, Lloyd's of London Press, London, 1995.
2. Gorton, Ihre, Sandevan, Ship Broking and Chartering Practice, Lloyd's of London Press, 1995.
3. Christopher Hill, Maritime Law, Lloyd's of London Press, London, 1995.
4. Stop Ford Martin, Maritime Economics, Routledge, London, 1995.
5. Branch Alan E, Elements of Shipping, Chapman Hall, London, 1993.

FB1914 MULTIVARIATE STATISTICAL ANALYSIS 3 0 0 3

UNIT I INTRODUCTION 6

Introduction – Basic concepts – Uni-variate, Bi-variate and Multi-variate techniques – Types of multivariate techniques – Classification of multivariate techniques – Guidelines for multivariate analysis and interpretation – Approaches to multivariate model building.

UNIT II PREPARING FOR MULTIVARIATE ANALYSIS 6

Introduction – Conceptualization of research problem – Identification of technique – Examination of variables and data – Measurement of variables and collection of data – Measurement of errors – Statistical significance of errors, Missing data – Approaches for dealing with missing data – Testing the assumptions of multivariate analysis – Incorporating non-metric data with dummy variables.

**UNIT III MULTIPLE LINEAR REGRESSION ANALYSIS, FACTOR ANALYSIS,
AND CANONICAL CORRELATION ANALYSIS 12**

Multiple Linear Regression Analysis – Introduction – Basic concepts – Multiple linear regression model – Least square estimation – Inferences from the estimated regression function – Validation of the model. Factor Analysis: Definition – Objectives – Approaches to factor analysis – Methods of estimation – Factor rotation – Factor scores Sum of variance explained – interpretation of resu Canonical Correlation Ana Objectives Canonical variates and anonical correlation – Interpretation of variates and correlations.

**UNIT IV MULTIPLE DISCRIMINANT ANALYSIS, CLUSTER ANALYSIS AND
CONJOINT ANALYSIS 12**

Multiple Discriminant Analysis – Basic concepts – Separation and Classification of two populations – Evaluating classification functions – Validation of the model. Cluster Analysis – Definitions – Objectives – Similarity of measures – Hierarchical and Non-hierarchical clustering methods – Interpretation and validation of the model. Conjoint Analysis – Definitions – Basic concepts - Attributes – Preferences – Ranking of Preferences – Output of Conjoint measurements – Utility – Interpretation.

UNIT V MULTI DIMENSIONAL SCALING AND ADVANCED TECHNIQUES 9

Multi Dimensional Scaling – Definitions – Objectives – Basic concepts – Scaling techniques – Attribute and Non-Attributes based MDS Techniques – Interpretation and Validation of models. Advanced Techniques – Structural Equation modeling – Basic concepts – Stages in SEM – Application of SEM in business research.

TOTAL: 45 PERIODS

REFERENCES:

1. Joseph F Hair, Rolph E Anderson, Ronald L. Tatham & William C. Black, Multivariate Data Analysis, Pearson Education, New Delhi, 2005.
2. Richard A. Johnson and Dean W. Wichern, Applied Multivariate Statistical Analysis, Prentice Hall of India Pvt. Ltd., New Delhi, 2005.
3. David R. Anderson, Dennis J Seveency and Thomas A. Williams – Statistics for Business and Economics, Thompson, Singapore, 2002.

FB1916 EXPERIMENTAL METHODS FOR EMPLOYEE PERFORMANCE 3 0 0 3**UNIT I 12**

Performance Measurement – Concepts – Appraisal System Design and Implementation – Experiment – Concepts – Purpose – Types – Conducting Experiments Reporting.

UNIT II 6

One Group Designs – Pretest – Posttest Design – Interrupted Time Series –Correlations Design.

UNIT III 9

Multiple Group Design – Two Groups Design – Multiple Group Post-test Design – Multiple Group Pre-test – Post-test Design – Expost Facto Design – Multiple Group Time Series Design.

UNIT IV 12

Factorial Designs – Two x Two factorial Design – Solomon Four Group Design – mxn Factorial design – Higher Order Factorial Design – Hierarchical Design – Design with a concomitant variable – Multivariate Design.

UNIT V 6

Randomization – Complete Randomization – Repeated Measures Design – Mixed Design – Randomized Block Design – Latin Square Design.

TOTAL: 45 PERIODS**REFERENCES:**

1. Michael S. Lewis- Beck (Editor), "Experimental Design and Methods", Sage Publication India Pvt. Ltd., New Delhi. 1993.
2. David G. Elmes, Barry H. Kentowitz and Hendry L. Roediger III, Research Methods in Psycholog, West Publishing Company, St' Paul. 1995.
3. Ronald R. Cooper, Pamela S. Schinder, 'Business Research Methods', Tata McGraw-Hill Publishing Co. Ltd. New Delhi. 2006.
4. Prem Chandra, 'Performance Management', Macmillian India Ltd., Chennai, 2003.

**FN9001 FUZZY LOGIC, NEURAL NETWORK, GENETIC ALGORITHM
AND ITS APPLICATIONS IN MANAGEMENT 3 0 0 3****UNIT I ARTIFICIAL INTELLIGENCE**

Introduction - Intelligent Agents – Problem-solving – Solving problems by searching – Informed search methods – Game Playing - Acting Logically – Planning – Practical Planning – Learning – Reinforcement Learning

UNIT II FUZZY LOGIC AND FUZZY SETS

Fuzzy Sets – Operations on Fuzzy Sets – Fuzzy Relations - Fuzzy Rules and Fuzzy Reasoning – Fuzzy Inference Systems – Fuzzy Logic – Fuzzy Expert Systems – Fuzzy Decision Making

UNIT III NEURAL NETWORK

Neural networks - Basic models of artificial neural networks: simple layer perception - Feed forward multilayer perceptron - Applications of neural networks - Adaptive filtering and adaptive pattern recognition

UNIT IV GENETIC ALGORITHM

Simple genetic algorithm – Mathematical foundations –Data structures – Reproduction – Cross over and mutation – Schema theorem and convergence of genetic algorithm

UNIT V HYBRID SYSTEMS

Neural-network-based fuzzy systems – Fuzzy logic based neural networks – Genetic algorithm for neural network design and learning – Fuzzy logic and genetic algorithm for optimization – Applications.

TOTAL: 45 PERIODS**REFERENCES:**

1. Stuart Russell, Peter Norvig, “Artificial Intelligence – A Modern Approach”, Second Edition, Pearson Education, 2004.
2. Chin-Teng Lin & C.S. George Lee, “Neural Fuzzy Systems”, Prentice Hall PTR.
3. Klir & Yuan, “Fuzzy Sets and Fuzzy Logic”, PHI, 1997.
4. S.Haykin, “Neural Networks”, Pearson Education, Second Edition, 2001.
5. S.Rajasekaran & G.A.V. Pai, “Neural Networks, Fuzzy logic and Genetic Algorithms”, PHI.
6. Jang, Sun & Mizutani, “Neuro-Fuzzy and Soft Computing”, PHI.
7. V.Kecman, “Learning and Soft Computing”, MIT Press, 2001.
8. D.Ruan, “Intelligent Hybrid Systems”, Kluwer Academic Publisher, 1997.

FN9002**RETAIL BANKING****L T P C
3 0 0 3****UNIT I - PRINCIPLES OF BANKING****8**

Structure and Functions of Banking - Indian Banking: Recent Trends. Commercial Banking Industry - International Banking – Retail and wholesale banking-Banker-Customer Relationship- New Age Banking and Special Services Rendered by Banks to Customers.

UNIT II – EVOLUTION AND CHALLENGES OF RETAIL BANKING**8**

Definition and Meaning of Retail Banking - Evolution of Retail Banking - Need for Retail Banking - Present Scenario of Retail Banking - Strategies for Increasing Retail Banking Business - Innovation in Customer Service in Banks – Challenges of Retail Banking

UNIT III - RETAIL BANKING PRODUCTS**9**

Retail Banking Products - Categorization of Retail Bank Services - Emerging Trends in Retail Bank Services – Bank Service to Common Man - Retail Banking: A Customer Centric Process.

UNIT IV - MARKETING & BANKING SERVICES**10**

Introduction to Marketing & Its Importance to Product Planning - Banking Marketing Mix: Product, Price, Place, Promotion - Marketing Information System - Market Segmentation - Marketing Strategy - Customer Segmentation - Changing Customer Profile

UNIT V - BANK PERSONNEL MANAGEMENT**10**

Fundamentals of human resource management - Structure and functions - Role of the HRD professional – Recruitment, Selection, Training and development of human resources, Compensation, Separation-Performance appraisal

TOTAL: 45**REFERENCES:**

1. A.M. Arondekar, O.P. Agarwal, Dr. Onkar Nath, P.S. Khandelwal; Principles of Banking, Macmillan India Ltd., Indian Institute of Banking & Finance, New Delhi, 2003.
2. Vasanth V. Joshi, Vinay V. Joshi; 'Managing Indian Banks: The Challenges Ahead'; 2nd Edition, Response Books, New Delhi, 1998
3. Mohan Prasad Shrivastava, Pradeep Kumar Pandey, V. P. Vidyarthi; Banking Reforms and Globalization; Global Media Publications, New Delhi, 2005
4. Katuri Nageswara Rao, ICFAI University, Banking Series, Hyderabad, 2002
5. Katuri Nageswara Rao; Innovations in Banks; ICFAI University Press, Hyderabad, 2005

FN9003**CORPORATE SOCIAL RESPONSIBILITY****L T P C
3 0 0 3****UNIT I INTRODUCTION 6**

Introduction to CSR –Need and scope – Corporate social initiatives– external and internal forces in CSR - Social and Cultural impacts –Stakeholder theory – Dilemmas

UNIT II CORPORATE SUSTAINABILITY 9

Corporate sustainability (CS) – human & ecological approaches – Drivers of corporate sustainability - competitive advantage & Corporate Social Responsibility – challenges in building sustainable corporations - Business cases.

UNIT III PHASES OF CORPORATE SUSTAINABILITY 9

Monitoring and assessment of corporate sustainability – sustainability models – implementation of sustainable initiatives - compliance – strategic opportunities - incremental, radical and transformational changes.

UNIT IV LEADING CORPORATE SOCIAL RESPONSIBILITY 9

Role of corporate leaders and change agents – effect of change on key stakeholders – CSR & CS audits – leading CSR & CS.

UNIT V FROM THEORY TO PRACTICE 12

Historical and theoretical perspectives of CSR Economic and Political economy of CSR– measuring CSR – CSR and Investor Perspectives – Aligning with interest of other stakeholders -Corporate Citizenship - Human Rights issues - Cases in CSR and CS.

TOTAL: 45 PERIODS**REFERENCES:**

1. Kotler Philip and Lee Nancy, Corporate Social Responsibility: doing the most good for your company and your cause – Wiley India – Reprint 2008.
2. Werther William and Chandler David, Strategic Corporate Social Responsibility: stakeholders in a Global environment Sage publications – 2006.
3. Banerjee Subratta ,Corporate Social Responsibility, Edward Elgar Publishing Limited 2007.
4. Gowther David and Lez Rayman Bucchus, Perspectives on Corporate Social Responsibility: Ash gate publishing 2005.
5. Hancock John, Investing in CSR : A guide to best practice, Kogan page 2005.
6. Kotler Philip, Roberto Ned and Lee Nancy, Social Marketing: Improving quality of life, Sage publication 2005.
7. Steve May, George Cheney and Juliet Roper, Debate over CSR, Oxford University Press, 2007.

FN9005 INTELLIGENT SYSTEMS FOR BUSINESS APPLICATIONS L T P C**3 0 0 3****UNIT I INTRODUCTION 9**

History and Applications of Artificial Intelligence – Algorithmic versus Heuristic reasoning, Representation and Intelligence. Knowledge Representation: Rule based, Model based, Case based and hybrid systems. Logic based Abductive Inference, Stochastic approach to uncertainty, Decision Making and DSS in business using Intelligent System.

UNIT II GENETIC ALGORITHMS 9

Introduction to Genetic Algorithms (GA) : Reproduction, Cross over, Mutation - Applications and software — Intelligent Agents – Multiple Agents and Data Mining – Distributed Artificial Intelligence - An Evolutionary Programming based Knowledge Ensemble Model for Business Risk Identification.

UNIT III NEURAL NETWORKS 9

Machine Learning Using Neural Network, Adaptive Networks – Feed forward Networks – Supervised Learning Neural Networks – Radial Basis Function Networks - Reinforcement Learning – Unsupervised Learning Neural Networks – Adaptive Resonance architectures – Advances in Neural networks - CBR Based Engine for Business Internal Control- An EMD-based Neural Network Ensemble Learning Model for World Crude Oil Spot Price Forecasting.

UNIT IV FUZZY LOGIC 9

Crisp set versus Fuzzy Sets – Operations on Fuzzy Sets –Fuzzy Arithmetic - Fuzzy Relations – Membership Functions- Fuzzy Rules and Fuzzy Reasoning – Fuzzy Inference Systems – Fuzzy Expert Systems – Fuzzy Decision Making - A fuzzy Clustering Analysis for Target Group Identification.

UNIT V HYBRID SYSTEMS 9

Adaptive Neuro-Fuzzy Inference Systems - Hybrid intelligence systems – Opportunistic Scheduling and Pricing Strategies for Automated Contracting in Supply Chains - AHP – SEM – DEA – Business

TOTAL = 45 PERIODS**TEXT BOOKS:**

1. Jyh-Shing Roger Jang, Chuen-Tsai Sun, Eiji Mizutani, “Neuro-Fuzzy and Soft Computing”, Prentice-Hall of India, 2003.
2. George J. Klir and Bo Yuan, “Fuzzy Sets and Fuzzy Logic-Theory and Applications”, Prentice Hall, 1995.
3. James A. Freeman and David M. Skapura, “Neural Networks Algorithms, Applications, and Programming Techniques”, Pearson Edn., 2003.

REFERENCES:

1. Mitchell Melanie, “An Introduction to Genetic Algorithm”, Prentice Hall, 1998.
2. David E. Goldberg, “Genetic Algorithms in Search, Optimization and Machine Learning”, Addison Wesley, 1997.
3. Jacek M. Zurada, “Introduction to Artificial Neural Systems”, PWS Publishers, 1992.
4. Prasad, Bhanu (Ed.), Soft Computing Applications in Business Series: Studies in Fuzziness and Soft Computing, Vol. 230, 2008.
5. Aliev, Rafik Aziz, Fazlollahi, Bijan, Aliev, Rashad Rafik, Soft Computing and its Applications in Business and Economics Series: Studies in Fuzziness and Soft Computing, Vol. 157, 2004.

UNIT I ORGANIZATIONAL BEHAVIOR 8

Introduction to OB - Attitude, Value, Behavior - OB models – Individual and Group Behavior and Performance– Leadership Styles – Organizational Culture - Factors affecting Organizational Climate – Job Description – Job Satisfaction – Motivational Theories – Decision Making.

UNIT II PERFORMANCE PLANNING AND MONITORING 9

Vision, Mission - Setting Goals for organization, teams and individuals – Building High Performing Teams – Role Clarity – Accountability - Development Plans – Mapping individual, team and organization goals – Setting Performance Criteria - Designing Performance Management Systems – Training and Communication- Monitoring Processes – Mentoring - Continuous Feedback - 360 degree Feedback – Periodic Reviews – Delivering Efficient Feedback.

UNIT III MEASUREMENT OF PERFORMANCE 10

Power of Measurement – Context of Measurement – Types of Measurement – Performance Appraisal Systems- Methods and Types of Appraisal – KPA, KRA, KPI- Appraisal System Design – Recognition and Rewards – Appraisal Systems in Higher Education- Measurement of Technology – Transformational Measures – Performance Measurement Maturity – Learning from Measurements –Balanced Score Card as a Measurement Tool – Development of Metrics.

UNIT IV PERFORMANCE MANAGEMENT SYSTEM 9

Evolution of Performance Management Practices – Performance Management Cycle – Risks and Benefits – Different Models of PMS – Management of Performance of Systems, Operations and Human - PM in Education Institutions – Performance Improvement Plans - Financial Performance – Understanding Balance Sheet and Profit and Loss Account – Financial Growth Analysis – Key Management Ratios – Application in Higher Education.

UNIT V ORGANIZATIONAL EFFECTIVENESS 9

Organizational Design – Dynamics of an organization - Organizational Evolution and Sustenance – Organizational Life Cycle - Models of Transformation– Organizational Learning- Creation of Value -Efficiency, Effectiveness, Productivity in Organizations– Role of leadership in organizational effectiveness- Measuring Organizational Effectiveness - Change through PMS especially in Higher Education Institutions.

TOTAL : 45 PERIODS

TEXT BOOKS:

1. Stephen P. Robins, Organisational Behavior, PHI Learning / Pearson Education, 13th edition, 2010.
2. Michael Armstrong & Angela Baron, Performance Management: The New Realities, Jaico Publishing House, New Delhi, 2002.

REFERENCES:

1. Dean R. Spitzer, Transforming Performance Measurement, Publ: American Management Association. NY – 2007.
2. Ciaran Walsh, Key Management Ratios, Publ: Prentice Hall, UK – 2008.
3. T.V.Rao, Performance management and appraisal systems, 2004
4. Prem Chadha: Performance Management, Macmillan India, New Delhi, 2003.
5. Amrik Singh, Fifty years of Higher Education in India: The role of the University Grants Commission, Sage Publications Ltd, 2004.

