

THAPAR UNIVERSITY, PATIALA

Detailed scheme of Master of Business Administration (MBA)



L M THAPAR SCHOOL OF MANAGEMENT

**PROPOSED SCHEME OF COURSES FOR MBA
(Effective from July 2011)**

First Trimester

| S. No. | Course No. | Course Name | L | T | P | Cr |
|--------|------------|----------------------------|-----------|----------|----------|-------------|
| 1. | PMB101 | Organisational Behaviour-I | 3 | 1 | 0 | 3.5 |
| 2. | PMB102 | Managerial Economics | 3 | 1 | 0 | 3.5 |
| 3. | PMB103 | Financial Accounting | 3 | 1 | 0 | 3.5 |
| 4. | PMB104 | Statistics for Management | 3 | 2 | 0 | 4.0 |
| 5. | PMB105 | Business Communication | 3 | 1 | 0 | 3.5 |
| 6. | PMB106 | IT Skills for Management | 2 | 0 | 2 | 3.0 |
| 7. | PMB107 | Quantitative Techniques | 3 | 0 | 0 | 3.0 |
| | | Total | 20 | 6 | 2 | 24.0 |

Second Trimester

| S. No. | Course No. | Course Name | L | T | P | Cr |
|--------|------------|--------------------------------|-----------|----------|----------|-------------|
| 1. | PMB201 | Organisational Behaviour-II | 3 | 1 | 0 | 3.5 |
| 2. | PMB202 | Marketing Management-I | 3 | 0 | 0 | 3.0 |
| 3. | PMB203 | Management Accounting | 3 | 1 | 0 | 3.5 |
| 4. | PMB204 | Finance-I | 3 | 1 | 0 | 3.5 |
| 5. | PMB205 | Operations Management | 3 | 1 | 0 | 3.5 |
| 6. | PMB206 | Information Systems Management | 3 | 1 | 0 | 3.5 |
| 7. | PMB207 | Human Resource Management | 3 | 1 | 0 | 3.5 |
| | | Total | 21 | 6 | 0 | 24.0 |

Third Trimester

| S. No. | Course No. | Course Name | L | T | P | Cr |
|--------|------------|---------------------------------|-----------|----------|----------|-------------|
| 1. | PMB301 | Global Business Environment | 3 | 0 | 0 | 3.0 |
| 2. | PMB302 | Marketing Management-II | 3 | 1 | 0 | 3.5 |
| 3. | PMB303 | Finance-II | 3 | 1 | 0 | 3.5 |
| 4. | PMB304 | Research Methodology | 2 | 1 | 1 | 3.0 |
| 5. | PMB305 | Enterprise Resource Planning | 3 | 1 | 0 | 3.5 |
| 6. | PMB306 | E-Business | 2 | 0 | 3 | 3.5 |
| 7. | PMB307 | Energy & Environment Management | 3 | 0 | 0 | 3.0 |
| | | Total | 19 | 4 | 4 | 23.0 |

Fourth Trimester

| S. No. | Course No. | Course Name | L | T | P | Cr |
|--------|------------------------------------|---------------------------------------|-----------|----------|----------|-------------|
| 1. | PMB401 | Management of Technology & Innovation | 3 | 0 | 0 | 3.0 |
| 2. | PMB402 | Corporate Legal Environment | 3 | 0 | 0 | 3.0 |
| 3. | PMB403 | Business Relationship & Ethics | 3 | 1 | 0 | 3.5 |
| 4. | <i>Codes from elective Baskets</i> | Elective-I (A)* | 3 | 0 | 0 | 3.0 |
| 5. | <i>Codes from elective Baskets</i> | Elective-II (A) | 3 | 0 | 0 | 3.0 |
| 6. | <i>Codes from elective Baskets</i> | Elective-III (B)** | 3 | 0 | 0 | 3.0 |
| | | Summer Internship^^ | 0 | 0 | 0 | 8.0 |
| | | Total | 18 | 1 | 0 | 26.5 |

^^ 8 Weeks duration (from May 15 to July 15), after Third Trimester.

Fifth Trimester

| S. No. | Course No. | Course Name | L | T | P | Cr |
|--------|------------------------------------|----------------------|-----------|----------|----------|-------------|
| 1. | PMB501 | Knowledge Management | 3 | 0 | 0 | 3.0 |
| 2. | PMB502 | Strategic Management | 3 | 0 | 0 | 3.0 |
| 3. | <i>Codes from elective Baskets</i> | Elective-IV (A) | 3 | 0 | 0 | 3.0 |
| 4. | <i>Codes from elective Baskets</i> | Elective-V (A) | 3 | 0 | 0 | 3.0 |
| 5. | <i>Codes from elective Baskets</i> | Elective-VI (B) | 3 | 0 | 0 | 3.0 |
| | | Total | 15 | 0 | 0 | 15.0 |

Sixth Trimester

| S. No. | Course No. | Course Name | L | T | P | Cr |
|--------|------------------------------------|-------------------|-----------|----------|----------|-------------|
| 1. | PMB601 | Entrepreneurship | 3 | 0 | 0 | 3.0 |
| 2. | <i>Codes from elective Baskets</i> | Elective-VII (A) | 3 | 0 | 0 | 3.0 |
| 3. | <i>Codes from elective Baskets</i> | Elective-VIII (A) | 3 | 0 | 0 | 3.0 |
| 4. | <i>Codes from elective Baskets</i> | Elective-IX (B) | 3 | 0 | 0 | 3.0 |
| | | Total | 12 | 0 | 0 | 12.0 |

Total Credits = 124.5

Areas of Specialization:

1. Human Resource
2. Marketing
3. Finance

4. Operations
5. Information Systems
6. Energy

* (A) **Major Specialization:** Students will choose **Six** elective courses from any one of the above mentioned areas.

** (B) **Minor specialization:** Students will choose **Three** elective courses from any area other than opted Major specialization.

Total Electives: 6 (A) + 3 (B) = 9 Electives

List of Electives:

Electives Basket for Trimester-IV

Elective- I (A) and II (A): Two courses belonging to the opted area of major specialization from the courses mentioned below.

Elective- III (B): One course belonging to the opted area of minor specialization from the courses mentioned below.

| S. No. | Course No. | Course Name | L | T | P | Cr |
|----------------------------|------------|---|---|---|---|-----|
| HUMAN RESOURCE | | | | | | |
| 1. | PMB405 | Strategic Human Resource Management | 3 | 0 | 0 | 3.0 |
| 2. | PMB406 | Leadership Skills | 3 | 0 | 0 | 3.0 |
| 3. | PMB407 | Compensation Management | 3 | 0 | 0 | 3.0 |
| MARKETING | | | | | | |
| 1. | PMB408 | Consumer Behaviour | 3 | 0 | 0 | 3.0 |
| 2. | PMB409 | Sales & Distribution Management | 3 | 0 | 0 | 3.0 |
| 3. | PMB410 | Integrated Marketing Communications | 3 | 0 | 0 | 3.0 |
| FINANCE | | | | | | |
| 1. | PMB411 | Security Analysis & Portfolio Management | 3 | 0 | 0 | 3.0 |
| 2. | PMB412 | Wealth Management & Personal Financial Planning | 3 | 0 | 0 | 3.0 |
| 3. | PMB413 | Corporate Tax Planning | 3 | 0 | 0 | 3.0 |
| OPERATIONS | | | | | | |
| 1. | PMB414 | Project Management | 3 | 0 | 0 | 3.0 |
| 2. | PMB415 | World Class Manufacturing | 3 | 0 | 0 | 3.0 |
| 3. | PMB416 | Operations in Service Industry | 3 | 0 | 0 | 3.0 |
| INFORMATION SYSTEMS | | | | | | |
| 1. | PMB417 | Management of Database Systems | 3 | 0 | 0 | 3.0 |
| 2. | PMB418 | Information Systems Analysis & Design | 3 | 0 | 0 | 3.0 |
| 3. | PMB419 | IT Enabled Services | 3 | 0 | 0 | 3.0 |
| ENERGY | | | | | | |
| 1. | PMB420 | Power Generation Management | 3 | 0 | 0 | 3.0 |
| 2. | PMB421 | Renewable Energy Sources | 3 | 0 | 0 | 3.0 |
| 3. | PMB422 | Environment Impact Assessment | 3 | 0 | 0 | 3.0 |

Electives Basket for Trimester-V

Elective- IV (A) and V (A): Two courses belonging to the opted area of major specialization from the courses mentioned below.

Elective- VI (B): One course belonging to the opted area of minor specialization from the courses mentioned below.

| S. No. | Course No. | Course Name | L | T | P | Cr |
|----------------------------|------------|--|---|---|---|-----|
| HUMAN RESOURCE | | | | | | |
| 1. | PMB503 | International Human Resource Management | 3 | 0 | 0 | 3.0 |
| 2. | PMB504 | Labour Laws | 3 | 0 | 0 | 3.0 |
| 3. | PMB505 | Human Resource Planning & Development | 3 | 0 | 0 | 3.0 |
| MARKETING | | | | | | |
| 1. | PMB506 | Marketing of Services | 3 | 0 | 0 | 3.0 |
| 2. | PMB507 | Product & Brand Management | 3 | 0 | 0 | 3.0 |
| 3. | PMB508 | Customer Relationship Management | 3 | 0 | 0 | 3.0 |
| FINANCE | | | | | | |
| 1. | PMB509 | International Finance | 3 | 0 | 0 | 3.0 |
| 2. | PMB510 | Financial Derivatives | 3 | 0 | 0 | 3.0 |
| 3. | PMB511 | Project & Infrastructure Finance | 3 | 0 | 0 | 3.0 |
| OPERATIONS | | | | | | |
| 1. | PMB512 | Logistics & Supply Chain Management | 3 | 0 | 0 | 3.0 |
| 2. | PMB513 | Business Process Reengineering | 3 | 0 | 0 | 3.0 |
| 3. | PMB514 | Total Quality Management & Six Sigma | 3 | 0 | 0 | 3.0 |
| INFORMATION SYSTEMS | | | | | | |
| 1. | PMB515 | Business Intelligence | 3 | 0 | 0 | 3.0 |
| 2. | PMB516 | IT Project Management | 3 | 0 | 0 | 3.0 |
| 3. | PMB517 | Decision Support Systems | 3 | 0 | 0 | 3.0 |
| ENERGY | | | | | | |
| 1. | PMB518 | Power Transmission & Distribution Management | 3 | 0 | 0 | 3.0 |
| 2. | PMB519 | Non-Renewable Energy Sources | 3 | 0 | 0 | 3.0 |
| 3. | PMB520 | Energy Audit & Energy Efficient Technologies | 3 | 0 | 0 | 3.0 |

Electives Basket for Trimester-VI

Elective- VII (A) and VIII (A): Two courses belonging to the opted area of major specialization from the courses mentioned below.

Elective- IX (B): One course belonging to the opted area of minor specialization from the courses mentioned below.

| S. No. | Course No. | Course Name | L | T | P | Cr |
|----------------------------|------------|---|---|---|---|-----|
| HUMAN RESOURCE | | | | | | |
| 1. | PMB602 | Social Security & Labour Welfare | 3 | 0 | 0 | 3.0 |
| 2. | PMB603 | Change Management | 3 | 0 | 0 | 3.0 |
| 3. | PMB604 | Industrial Relations & Labour Policy | 3 | 0 | 0 | 3.0 |
| MARKETING | | | | | | |
| 1. | PMB605 | International Marketing | 3 | 0 | 0 | 3.0 |
| 2. | PMB606 | B2B Marketing | 3 | 0 | 0 | 3.0 |
| 3. | PMB607 | Rural Marketing | 3 | 0 | 0 | 3.0 |
| FINANCE | | | | | | |
| 1. | PMB608 | Investment Banking & Financial Services | 3 | 0 | 0 | 3.0 |
| 2. | PMB609 | Financial Engineering & Risk Management | 3 | 0 | 0 | 3.0 |
| 3. | PMB610 | Corporate Restructuring | 3 | 0 | 0 | 3.0 |
| OPERATIONS | | | | | | |
| 1. | PMB611 | Operations Strategy | 3 | 0 | 0 | 3.0 |
| 2. | PMB612 | Materials Management | 3 | 0 | 0 | 3.0 |
| 3. | PMB613 | Lean & Flexible Manufacturing System | 3 | 0 | 0 | 3.0 |
| INFORMATION SYSTEMS | | | | | | |
| 1. | PMB614 | IT Strategy for Business | 3 | 0 | 0 | 3.0 |
| 2. | PMB615 | Data & Information Security | 3 | 0 | 0 | 3.0 |
| 3. | PMB616 | IT Infrastructure Management | 3 | 0 | 0 | 3.0 |
| ENERGY | | | | | | |
| 1. | PMB617 | Energy Security & Pricing | 3 | 0 | 0 | 3.0 |
| 2. | PMB618 | Power Sector Reforms | 3 | 0 | 0 | 3.0 |
| 3. | PMB619 | Energy Economics and Policy Aspects | 3 | 0 | 0 | 3.0 |

PMB101 ORGANISATIONAL BEHAVIOUR - I

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): None

Organisational Behaviour: Concept, Nature, Process, Characteristics of Organisational Behaviour, Conceptual Foundations and Importance, Models of Organisational Behaviour, Management Challenge, A Paradigm Shift, Relationship with Other Fields, Cognitive Framework, Behaviouristic Framework and Social Cognitive Framework of Organisational Behaviour.

Perception & Attitude: Concept, Nature, Process, Importance, Management and Behavioural Applications of Perception, Attitude-Concept, Process and Importance, Attitude Measurement, Attitudes and Workforce Diversity, Concept, Nature, Types and Theories of Personality Shaping, Personality Attitude and Jobsatisfaction.

Learning & Motivation: Process of Learning, Principles of Learning, Organisational Rewards System, Behavioural Management, Concept and Applications of Motivation, Principles, Theories, Employee Recognition, Involvement, Motivating a Diverse Workforce.

Emotions & Stress Management: Concept of Emotions, Influence of Emotion on Employees Behaviour, Importance and Measurement of Emotional Quotient, Understanding Stress and Its Consequences, Sources or Causes of Stress, Effects of Stress on Humans, Management of Stress.

Recommended Books:

1. Robbins Stephen P., *Organisational Behaviour*, Pearson Education (2007).
2. Newstrom John W., *Organisational Behaviour: Human Behaviour at Work*, Tata McGraw Hill (2008).
3. Davis, Keith., *Human Behaviour at Work.*, Tata McGraw Hill (2008).
4. Prasad L.M., *Organisational Behaviour*, Sultan Chand (2008).

PMB102 MANAGERIAL ECONOMICS

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): None

Managerial Economics: Introduction, Nature and Scope, Objectives of the Firm, Theories of the Firm- Sales and Revenue Maximization Theory, Profit Maximization Theory, Behavioural Theories.

Demand Analysis: Demand- Meaning, Types and Determinants of Demand, Demand Function- Law of Demand, Elasticity of Demand- Methods, Determinants and Managerial Uses. Demand Forecasting- Purpose, Quantitative and Qualitative Techniques of Demand Forecasting, Criteria for Good Forecasting Method.

Production Analysis: Production Function- Law of Variable Proportions, Isoquant and Isocost Curves, Least Cost Combination, and Law of Returns to Scale, Cobb-Douglas Production Function and Constant Elasticity of Substitution, Cost Concepts, Cost Oriented Pricing Methods.

Market Analysis: Market Structures, Output and Pricing Decisions- Perfect Competition, Monopoly, Oligopoly and Monopolistic Competition, Profit- Meaning and Theories.

Macro Economic Analysis: National Income Concepts, Modern Theory of Income and Employment, Economic Situations and Policy Instruments- Monetary and Fiscal, Business Cycles and Economic Growth.

Recommended Books:

1. Dean, Joel, *Managerial Economics*, Prentice Hall India (2007).
2. Peterson, H. Craig, Lewis, W. Chris and Jain, Sudhir K. *Managerial Economics*, Pearson Education (2006).
3. Mehta, P.L., *Managerial Economics: Text and Cases*, S. Chand and Co. (2007).
4. Sameulson, Paul A. and Nordhaus, William D., *Economics*, .
5. Dewett, K.K., *Modern Economic Theory*, S. Chand and Co. (2006).
6. Mansfield, E., Allen, W.B. and Doetry, N.N., *Managerial Economics: Theory, Applications and Cases*, WW Norton and Company (2002).

PMB103 FINANCIAL ACCOUNTING

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): None

Introduction to Financial Accounting: Accounting Concept, Importance and Scope, Generally Accepted Accounting Principles, Accounting Process & Sub-Division of Journal

Preparation of Financial Statements: With special reference to analysis of a Balance Sheet and Measurement of Business Income

Inventory Accounting & Depreciation Accounting

Financial Statement Analysis: Financial Ratios, Comparative Analysis, Common-Size Analysis, and Trend Analysis

Cash Flow Statement: As per AS-3 Accounting Standard.

Recommended Books:

1. Ghosh, T.P., *Financial Accounting for Managers*, Taxman (2006).
2. Ramachandran, N. and Kakani, Ram K., *Financial Accounting for Management*, Tata McGraw Hill (2007), 2nd ed.
3. Tulsian, P.C., *Financial Accounting*, Pearson Education, 2nd ed.
4. P.,Stice, , *Financial Accounting-Reporting and Analysis*, Thomson (2005).

PMB104 STATISTICS FOR MANAGEMENT

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 2 | 0 | 4.0 |

Prerequisite(s): None

Measure of central tendency: Mean, median, mode, geometric mean and harmonic mean.

Measure of dispersion: Range, inter-quartile range, semi-inter quartile range, mean deviation and standard deviation.

Skewness: Measure of Skewness and Karl Pearson Coefficient of Skewness.

Probability Distribution: Probability Theory and Probability Distributions, Binomial, Poisson, Normal and Exponential Distributions.

Correlation and Regression Analysis: Kinds of Correlation, Different types of correlation, Scatter Diagram, Karl Pearson's coefficient for measuring linear correlation, actual mean method, direct method and short-cut method. Spearman's Rank Correlation Coefficient, Different method of regression; method of least square, method of deviation from means, properties of regression coefficients; Standard error of estimate.

Time Series Analysis: Utility of Time series analysis, components of time series, analysis of time series, measure of trend, shifting the trend origin, measure of seasonal variation, measurement of cyclical variation.

Index Numbers: Characteristics of Index number, types of index number, problems in the construction of index number and methods.

Recommended Books:

1. Gupta, S.P and Gupta M.P., *Business Statistics*, Sultan Chand (1997).
2. Anderson, D. R., Sweeney, D. J., Williams T. A., *Statistics for Business and Economics 9e*, Thompson Learning (2007).
3. Chadha, N. K., *Statistics for Behavioural and Social Scientists*, Reliance Publication House (1996).
4. Gupta, S.P and Gupta M.P., *Business Statistics*, Sultan Chand (1997).

PMB105 BUSINESS COMMUNICATION

| | | | |
|----------|----------|----------|------------|
| L | T | P | Cr |
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): None

Basics of Business Communication: Effective Communication and its benefits; Methods of communication; Choice of channel for communication; Barriers to communication; Communicating across cultures; Impact of information technology.

Speaking, Listening and Non-Verbal communication: Use of modern technology in communication

Recruitment Correspondence: Application letter; curriculum vitae; invitation to interview; offer of employment; letter of acceptance; letter of resignation

Meetings: Business Meetings; Notices and Agenda, minutes of meetings; follow-up of meetings

Reports: Types of reports; report writing; proposal

Circular & Sales Letters

Publicity material: Public relations; News releases; News Letters

Oral and visual presentations

Recommended Books:

1. Ober, Scot, *Contemporary Business Communication, All India Publishers and Distributors, Chennai* (2000).
2. Taylor, Shirley, *Communication for Business- A Practical Approach, Pearson Publication* (2007).
3. Chaturvedi, Mukesh and Chaturvedi PD, *Business Communication, Pearson Publication* (2007).

PMB106 IT SKILLS FOR MANAGEMENT

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 0 | 0 | 3.0 |

Prerequisite(s): None

Introduction to Computer Concepts: Elements of computer, Characteristics of a Computer, Classification of Computers, Basic Computer Architecture, Input-output Devices, Peripheral Devices.

Software Concepts: Types of software, Software: Its nature and qualities, Windows Operating System Functions, Basic usages of MS Office, Applications of MS Word – creating tables, table of contents, indexing, mail merge, password protect, protecting documents, page numbers, signatures, flow charts, header & footer, tracking changes, watermarks, line numbers, bulleting, insert citations,

Applications of MS Excel: Graphs and Charts, using different functions & formulas, conditional formatting, protecting worksheets & work books, using sort and filter, pivot tables, freeze panes, creating macros etc, all with reference to managerial applications,

MS Power Point: Introduction, Toolbar, their Icons and Commands, Creation of slides, animation, and templates, Designing Presentations, Slide show controls,

MS Outlook: how to send professional emails, use the calendar effectively, creating folders & use of rules for incoming and outgoing emails,

Browser settings & Resource sharing: How to assign IP to your computer, How to share printers and HDD, How to get connect with Internet.

Recommended Books:

1. *Sharma, D., Information Technology for Business, Himalaya Publications, Mumbai, (2007).*
2. *Bharhoke, Deepak, Fundamentals of IT, Excel Books.*
3. *Sharma, Dhiraj, Foundation of IT, Excel Books.*

PMB107 QUANTITATIVE TECHNIQUES

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): None

Overview: Mathematical Basis of Managerial Decisions.

Matrices: Addition, subtraction, multiplication, inverse of matrices and Markov Analysis.

Decision Theory: Decision Under certainty, risk and Uncertainty, Marginal Analysis, Decision Tree Analysis.

Linear Programming: Graphical Solution and Simplex Method, Duality, Sensitivity Analysis.

Game Theory: Pure and Mixed Strategy, Graphical, Dominance and Algebraic Method, Queuing Theory.

Transportation Problems: Initial Basic Feasible Solution, Test for Optimality and Transshipment, Assignment Problem.

Recommended Books:

1. Taha, H.A., *Operations Research: An Introduction*, PHI (2004).
2. Sharma, J.K., *Fundamentals of Operations Research*, Macmillan (2001).
3. Allen, RGD, *Mathematics Analysis for Economics*, AITBS Publishers (1997)

PMB201 ORGANISATIONAL BEHAVIOUR-II

| | | | |
|---|---|---|-----|
| L | T | P | Cr |
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): ORGANISATIONAL BEHAVIOUR-I

Leadership: Definition of Leadership, Importance of Leadership, Leadership Styles, Models and Theories of Leadership Styles, Group Dynamics and Teams, Theories of Group Formation, Formal and Informal Groups and their Interaction, Importance of Teams, Formation of Team, Team Work.

Organisation Design And Culture: Various Organisational Structures and their effects on Human Behaviour, Restructuring of Organisations and Teams, Motives behind Restructuring, Concept, Characteristics and Elements of Organisational Culture, Implications of Organisational Culture.

Organisational Power, Politics and Conflicts: Concept and Sources of Power, Distinction Between Power, Authority and Influence, Approaches to Power, Political Implication of Power, Dysfunctional Uses of Power, Concept, Sources and Types of Conflicts, Traditional Vis-à-vis Modern View of Conflict, Constructive and Destructive Conflict, Process of Conflict, Strategies for Encouraging Constructive Conflict, Strategies for Resolving Destructive Conflict.

Organisational Change and Development: Importance of Change, Forces Responsible for Change, Resistance to Change, managing Resistance to Change, Implementing Change, Kurt Lewin Theory of Change, Meaning and Concept of Organisational Development, Factors Influencing Organisational Development, Process of Organisational Development, Organisational Development as a Tool for Introduction to Change.

Recommended Books:

1. Robbins, Stephen P., *Organisational Behaviour*, Pearson Education (2007).
2. Newstrom, John W., *Organisational Behaviour: Human Behaviour at Work*, Tata McGraw Hill (2008).
3. Davis, Keith, *Human Behaviour at Work.*, Tata Mcgraw Hill (2008).
4. Prasad, L.M., *Organisational Behaviour*, Sultan Chand (2008).

PMB202 MARKETING MANAGEMENT-I

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 0 | 0 | 3.0 |

Prerequisite(s): None

Marketing Concepts: Nature and Scope of Marketing, Core Marketing Concepts, Company Orientation toward the Marketplace

Marketing Enablers: Marketing Environment, Consumer Markets, Business Markets, Buying Decision Process, Participants in the Buying Process

Strategic Marketing: Strategic Planning, Marketing Planning, Market Segmentation, Targeting and Positioning.

Marketing Mix: Product Decisions, Pricing Methods and Strategies, Promotion Mix, Place, Marketing Plans Implementation, Evaluation and Control.

Contemporary Issues in Marketing: Globalization, Consumerism, Green Marketing, Legal Issues-Consumer Protection Act.

Recommended Books:

1. Kotler, P., *Marketing Management*, Prentice Hall (2007).
2. Ramaswamy, V. S. and Kumari, N., *Marketing Management – Planning, Implementation and Control*, McMillan India (2006).
3. Saxena, R., *Marketing Management*, Tata McGraw Hill (2003).

PMB203 MANAGEMENT ACCOUNTING

| | | | |
|---|---|---|-----|
| L | T | P | Cr |
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): FINANCIAL ACCOUNTING

Introduction to Management Accounting: Objectives, Scope, Tools and Techniques of Management Accounting. Financial Accounting vs. Management Accounting

Budgeting & Budgetary Control: Objectives of Budgeting, Essential of Successful Budgeting, Types of Budgets, Recent Developments: Performance Budgeting, Zero Base Budgeting, Behavioral Aspects

Cost Accounting: Elements of Costs, Behavior of Costs, Costs Control, Cost Reduction and Cost Management, Scope of Cost Reduction

Relevant Costing and Costing for Decision-Making: Standard Costing and Variance Analysis (Material Variance, Labour Variance), Absorption Costing and Marginal Costing, Cost-Volume-Profit Analysis, Activity Based Costing (ABC).

Recommended Books:

1. Jain, I.C., *Management Accounting, Taxman* (2008).
2. Khan, M.Y. and Jain, P.K., *Management Accounting, 4th Edition, Tata McGraw Hill* (2008), 4th ed.
3. Kishore, M., Ravi, *Cost Accounting, Taxman Publication, 2nd ed.*
4. Vij, Madhu, *Management Accounting, MacMillan Publication, 1st ed.*

PMB204 FINANCE-I

| | | | |
|----------|----------|----------|------------|
| L | T | P | Cr |
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): FINANCIAL ACCOUNTING

Introduction to Financial Management: Evolution of Financial Management, Functions of Financial Management, Relationship between Finance and other Management Functions, Concept of Time Value of Money.

Financing Function: Long Term Sources of Finance, Concept of Cost of Capital, Computation of Cost of Capital of Individual Sources of Finance, Weighted Average Cost of Capital, Theories of Capital Structure, Net Income Approach, Net Operating Income Approach, Traditional Approach, M&M Approach, Factors Effecting Capital Structure.

Investment Function: Meaning of Capital Budgeting, Process of Capital Budgeting, Traditional Techniques of Capital Budgeting, Pay Back Method, ARR Method, Discounted Cash Flow Techniques, Net Present Value Method, Profitability Index, Internal Rate of Return, Discounted pay back Method, Capital Rationing, Merits and Demerits of different Techniques of Capital Budgeting.

Recommended Books:

1. Khan and Jain, *Financial Management*, Tata McGraw Hill (2008).
2. James C. Van Horne, *Financial Management*, Prentice Hall of India (2007).
3. Pandey, I.M., *Financial Management*, Vikas Publication (2008).
4. Chandra, P., *Financial Management*, Tata McGraw Hill.

PMB205 OPERATIONS MANAGEMENT

| | | | |
|---|---|---|-----|
| L | T | P | Cr |
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): None

Introduction to Operations Management: Operations Management Defined, Need of Operations Management, Nature & Scope of Operation Management, Relationship with other functional areas, Concept of Goods vs Services, Overview of Operations Strategy, and Theory of Slack Ropes.

Product and Process Design: Introduction to Process design, Product – process matrix, Process design in Services, Product Design and Service Design, Design for manufacturing, Design for Assembly and modular design, Concept of Quality Function Deployment and House of Quality.

Facility Layout and Location Selection: Concept of Facility Location and various methods for location selection, Facility Layout: Product layout, Process Layout, Hybrid and other forms of layout, Advantages and Disadvantages.

Overview of Supply Chain and Inventory management: Introduction to Supply Chain Management and its importance in Operations management, Bullwhip Effect Inventory Management, WIP, EOQ Model, ABC Classification, Forecasting and its different methods, Capacity Planning and Aggregate Production Planning, MRP, Scheduling

Quality Management: Overview of Quality Management, Quality: Definition, Dimension, Types of Waste, KANBAN System, Total Quality Management (TQM), Overview of Six Sigma.

Recommended Books:

1. Chase, Aquilano and Jacobs, *Production and Operations Management*, Tata McGraw-Hill (2006).
2. Russell, R. S. and Taylor III, B. W., *Operations Management*, Pearson Education (2006).
3. Lee J. Krajewski and Larry P. Ritzman, *Operations Management: Strategy and Analysis*, Pearson Education (2006).
4. Evans and Collier, *Operations Management*, Cengage Learnings (2007)
5. Gaither and Freizer, *Operations Management*, Cengage Learnings (2004)

PMB206 INFORMATION SYSTEMS MANAGEMENT

| | | | |
|----------|----------|----------|------------|
| L | T | P | Cr |
| 3 | 1 | 0 | 3.5 |

Prerequisite(s): None

Introduction to Information system : Fundamental of Systems, Information system concepts and definition , Connecting users to IT, Benefits of Information system , Business Fundamentals

Information system Fundamentals Information system Hardware, Information system software, Information system Networks and Internet, Information system Data management, Information system users,

Business Information systems: Personal productivity and problem solving, Group collaboration
Business Operations: Transaction Processing Systems, Basic Information system, Other Information system: Accounting Information system, Marketing Information system, Manufacturing Information system, overview of ERP

Management support Information system: MIS, Decision Support System, overview of EIS
E-Commerce and the strategic Impact of Information system

Developing and Managing Information Systems

Recommended Books:

1. *Laudon, Kenneth and Laudon, Jane, MIS: Managing the Digital Firm, Pearson Education (2005).*
2. *O'Brien, James, An Introduction to Information Systems, Tata McGraw Hill (2005).*
3. *McLean, Turban, E. and Wetherbe, J, Information Technology for Management (2001).*
4. *Jawadekar, W. S., Management Information Systems, Tata McGraw Hill (2004).*
5. *Robert C. Nickerson - Business and Information Systems 2nd edition. PHI (2009).*

PMB207 HUMAN RESOURCE MANAGEMENT

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| L | T | P | Cr |
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Prerequisite(s): None

Overview: Nature of HRM, Role and Functions, Context of Human Resource Management, Evolution of Human Resource Management

HRM Process: Human Resource Planning, Acquisition of Human Resources, Analyzing and designing jobs, Recruitment and Selection, Selection Process, Placing and Inducting new hires, Performance and Potential Appraisal, Job evaluation

HR Development: Training and Development, Employee Health and Safety, Motivation perspectives, Empowering employees

Recommended Books:

1. Aswathappa K., *Human Resource Management*, Tata McGraw Hill (2008).
2. Rao, VSP, *Human Resource Management*, Exel Books (2008).
3. Dessler, G. and Verkkey, B., *Human Resource Management*, Prentice Hall (2009).

PMB301 GLOBAL BUSINESS ENVIRONMENT

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 0 | 0 | 3.0 |

Prerequisite(s): None

Global Business Environment: Definition, Concept and Scope, Components and Significance- Economic, Political, Social, Cultural, Legal and Technological Environment, Dimensions of International Business Environment and Challenges- Recent World Trade and Foreign Investment Trends.

Indian Economic Environment: Structure of Indian Economy- Public, Private, Joint and Co-operative Sectors, Overview of Planning in India, Industrial Policy, Trade and Commerce Policy, and Foreign Policy, Emerging Trends in Indian Business Environment, Indian Companies- Competitiveness, Changes and Challenges.

Economic Systems and Dynamics: International Trade Theories, Balance of Payments- Concepts, Disequilibrium in BOP and Methods of Correction, World Financial Environment, Foreign Exchange Market Mechanism- Exchange Rate Determination and Euro Currency.

Globalization and International Trade: International Economic Integration- Country Evaluation and Selection, Foreign Market Entry Methods, Trade Barriers and Trade Strategy- Free Trade vs. Protection, International Trading Blocks- EU, NAFTA, Asian Common Market, AFTA and SAARC, Impact of WTO on India.

International Institutions: WTO, IBRD (World Bank), IMF, IFC and ADB- Objectives, Organization Structure and Functioning.

Recommended Books:

1. Cavusgil, S. Tamer, Gary Knight, John R. Riesenberger, *International Business: Strategy, Management and New Realities*, Pearson Education (2009).
2. Hill, Charles W., Arun K. Jain, *International Business*, Tata McGraw Hill (2008).
3. Richard, M.S. and Luciara, N., *Managing in the Global Environment*, PHI (2006).
4. Cherunilam, F., *Business Environment*, Himalaya Publishing House (2007).
5. Aswathappa, K., *Essentials of Business Environment*, Himalaya Publishing House (2007).
6. Dutt, R. and Sundaram, K.P.M., *Indian Economy*, S. Chand and Co. (2007).

PMB302 MARKETING MANAGEMENT-II

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| L | T | P | Cr |
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Prerequisite(s): MARKETING MANAGEMENT-I

Marketing Enablers: Marketing Information System, Marketing Research

Marketing Mix: Branding and Packaging, Managing Services

Marketing Response: Dealing with Competition

Marketing Decisions: Marketing Decisions Environment, Approach and Tools

Customer Value Assessment: Valuing Customers, Customer Value, Satisfaction and Loyalty

Marketing Analysis: Segmentation and Targeting, Positioning, New Product Development

Recommended Books:

1. Kotler, P., *Marketing Management*, Prentice Hall (2007)
2. Ramaswamy, V. S. and Kumari, N., *Marketing Management-Planning, Implementation and Control*, McMillan India (2006)
3. Saxena, R., *Marketing Management*, Tata McGraw Hill (2003)
4. Lilien, Gary L.; Rangaswamy, Arvind and Bruyn, Arnaud De, *Principles of Marketing Engineering*, Trafford Publishing (2007)
5. Lilien, Gary L.; Kotler, Philip and Moorthy, K. Sridhar, *Marketing Models*, PHI (2010)

PMB303 FINANCE-II

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| L | T | P | Cr |
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Prerequisite(s): FINANCE-I

Risk Analysis in Capital Budgeting: Risk and Uncertainty in Capital Budgeting, Techniques to handle Risk in Capital Budgeting, Risk Adjusted Net Present Value, Certainty Equivalent value, Expected Net Present Value, Standard Deviation under dependent and independent cash flows, Coefficient of Variance, Normal Distribution, Decision Tree Analysis, Sensitivity Analysis, Simulation Analysis.

Working Capital Management: Gross Working Capital, Net Working Capital, Working Capital Cycle, Determinants of Working Capital, Sources of Working Capital, Approaches of Working Capital, Different Committees on Working Capital, Methods of measuring Working Capital, Cash Management Models, Inventory Management, Receivables Management

Dividend Decision Function: Theories of Dividend Decisions, Walter's Model, Gordon's Approach, Modigliani and Miller's Hypothesis, Factors effecting Dividend, Different Dividend Policies, Legal Implications of Dividends, Stock Splits, Bonus Shares, Stock Dividends, Dividend Practices of Indian Companies.

Recommended Books:

1. Khan and Jain., *Financial Management*, Tata McGraw Hill (2008).
2. James C. Van Horne, *Financial Management*, Prentice Hall of India (2007).
3. Pandey, I.M., *Financial Management*, Vikas Publication (2008).
4. Chandra P., *Financial Management*, Tata McGraw Hill.

PMB304 RESEARCH METHODOLOGY

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| L | T | P | Cr |
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Prerequisite(s): None

Introduction to Business Research Methods: Concept and Nature of Research Methods, Types of Research, Applications of Research Methods in Business, Research Process.

Types of Research Design: Exploratory, Descriptive and Experimental, Development of Research Designs, Problem identification, Types of Sampling Methods, Sampling Process, Sampling Design Preparation.

Types of Data: Primary and Secondary, Sources of Secondary Data, Methods of Primary Data Collection – Interviews, Questionnaires, Schedules and Observation, Likert, Turnstone, Staple, Semantic, Constant Sum, Rating and Ranking Scales, Questionnaire Designing, Manual and Computerized Data Processing Methods.

Statistical Techniques for Data Analysis: Testing of Hypothesis, Interpreting Data; Report Writing, Ethical Issues in Business Research and Measurement of Effectiveness.

Recommended Books:

1. Kothari, C. R., *Methods and Techniques of Research*, Vishwa Prakashan (2007).
2. Umasekaran, B., *Research Methods for Business*, John Wiley and Sons (2005).
3. Saunders, M. and Lewis, P., *Research Methods for Business Students*, Prentice Hall (2000).

PMB305 ENTERPRISE RESOURCE PLANNING

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| L | T | P | Cr |
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Prerequisite(s): None

ERP-Enterprise Perspective: An Overview, Features of ERP, MIS Integration, ERP drivers, Trends in ERP, ERP in India.

ERP: System Perspective: Management Information System, Operations Support System, DSS, Network Structure of ERP System, ERP Work flow, Process modeling for ERP Systems, Enterprise Integration Application Tools for ERP.

ERP: Resource Management Perspective: Business Modules in ERP Packages, Finance, Production, Human Resource, Plant Maintenance, Materials Management, Quality Management, Sales and Distribution, Business Process Reengineering, Relationship between ERP & BPR, ERP Implementation Life Cycle, Key issues in ERP, An overview of ERP's linkage with E-Commerce, CRM and SCM.

Recommended Books:

1. Elen, Monk and Bret, Wagner, *Concepts in Enterprise Resource Planning*, Cengage Learning (2005).
2. Alexis, Leon, *ERP Demystified*, Tata McGraw Hill (2000).
3. Sadagopan, S., *ERP: A Managerial perspective*, Tata McGraw Hill (2006).
4. Imhoff, C. Loftis Lisa & Geiger, G. Jonathan, *Building the Customer Centric Enterprise*, John Wiley & Sons (2001).

PMB306 E-BUSINESS

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| L | T | P | Cr |
| 2 | 0 | 3 | 3.5 |

Prerequisite(s): None

Introduction to e-Business and e-Commerce: Definition, Difference between traditional commerce & e-commerce, traditional business & e-business, Categories of e-business: B2C, B2B, C2B, G2C, C2G, e-business Trends and e-business patterns, How electronic payment system works.

Application framework for e-business and e-commerce: front end logical office, difference between e-commerce and e-business, Building the e-business backbone: ERP, Overview of e-CRM, selling chain management, e-SCM, e-procurement, BI.

E-Business: Development, formulation and execution.

Security Threats to e-business: Threats to e-business from malwares, Defensive measures against threats: Cryptography, Digital Signatures, antivirus and firewalls.

Recommended Books:

1. Dave, Chaffey, "E-Business & E-Commerce Management", 4th edition, Pearson Education (2009).
2. Jeffrey, F. Rayport & Bernard J. Jaworski; "Introduction to e-commerce", Tata Mcgraw Hill Publications (2003).
3. Wagner & Napier, "Creating a Winning E - Business", Cengage Learning (2005).
4. Ravi, Kalakota and Andrew B. Whinston: Electronic Commerce; A Manager's Guide, Pearson Education, (2005).
5. Efrain, Turban, Jae Lee Kavid King and H. Michael Chung, "Electronic Commerce: A Managerial Perspective, Pearson Education, (2006).
6. Amit Kumar Bhardwaj, "E-business: Concept and security", Kalyani Publications (2010).

PMB307 ENERGY AND ENVIRONMENT MANAGEMENT

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| L | T | P | Cr |
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Prerequisite(s): None

Energy Basic: Primary and Secondary Energy, Energy units, Power, Humans and energy, Energy Sources we use, Environmental concerns.

Fossil Fuels :Introduction, Petroleum, Petroleum Refining, Natural Gas, Unconventional oil Gas resources shale oil , Tar sands, Hydrates, Formation of coal, Coal resources.

Global Effects: Greenhouse Effect, Green house gases, world climate changes, Global warming, Ozone Depletion in Stratosphere, Kyoto Protocol

Air Pollution: The Earth's Atmosphere, Thermal Inversions , Carbon Monoxide, OXIDES of nitrogen hydrocarbon Emissions and Photochemical smog, Sulphur Dioxide, Particulates as Pollutants, Acid rain

Transportation: Short history of transportation, Energy and transportation, Mass transportation, Carbon Dioxide emissions

Energy Conversation: Energy saving Techniques, Energy Conversation Industry.

Nuclear Energy: Basics of Nuclear Energy, Uses of Nuclear energy, Environment and Safety Aspects of Nuclear Energy.

Renewable Energy Sources: Basics of Solar energy, Wind energy, Hydropower, Biomass Energy, Geothermal Energy, Tidal Energy.

Recommended Books:

1. Ristinen Robert A. and Krausharr Jack J "Energy and Environment", John Wiley Sons, NJ, USA (2006).
2. Ngo Christian and Natowitz josseph B," Our Energy Future", John Wiley sons, NJ,USA (2009).
3. Bishop P.L, "Pollution Prevention –Fundamentals and Practice", Tata Mc Grew Hill, New Delhi (2008).

PMB401 MANAGEMENT OF TECHNOLOGY & INNOVATION

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 0 | 0 | 3.0 |

Prerequisite(s): None

Managing Technology: Definitions and Components of Technology, Technology Development, Adaptation and Diffusion, Technology Transfer, Technology Forecasting, Technology Assessment in Terms of Capabilities and Development Potential, Designing Rules for Emerging Technology.

Managing Innovation: Innovation Process and its Management, Innovation Protection - Intellectual Property Rights, Technology Innovation and Applied Research.

Technology and Society: Introduction of New Technologies in Working Environments, Managing Technological Change, Impact of Poor Technology Strategy, Its Effect on Corporate Growth, Quality of Work Life and Society in General.

Recommended Books:

1. Porter Michael, *Techniques for Analyzing the Industries and Competitors*, Foreman Publication
2. Narayanan, V.K., *Managing Technology & Innovation for Competitive Advantage*, Pearson Education Inc. (2009)
3. Rao, A. S., *Managing of Technology Change*, Global Business Press (2004).
4. Steele, L. W., *Managing Technology: The Strategic View*, McGraw Hill (2006).
5. Trott, Paul, *Innovation Management & New Product Development*, Pearson Education Inc. (2010)

PMB402 CORPORATE LEGAL ENVIRONMENT

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| L | T | P | Cr |
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Prerequisite(s): None

Law of Contract: Definition, offer and acceptance, consideration, capacity of parties, free consent, legality of object, Performance and discharge of contract and remedies for breach of contract, Introduction to the concept of agent and different types of mercantile agents.

Sale of Goods Act: Meaning, formation of contract, Meaning of condition and warranty. Difference between transfer of property and possession, principle of caveat emptor, rights of an unpaid seller

Negotiable Instruments: Bills of Exchange, Promissory Note, Cheques: Rules regarding the crossing of cheques, dishonour of cheques and liability of banker and drawer, Holder and holder in due course.

Company law: Characteristics of company, distinction between company and partnership, Kinds and formation of company, memorandum and articles of association.

Factories Act: Health, Safety and Welfare Provisions.

Essentials of Industries (Development & Regulations) Act, 1951

Recommended Books:

1. Kapoor N.D., *Elements of Mercantile Law*, Sultan Chand & Sons (2001).
2. Singh Avtar, *Company Law* (2007).
3. Singhania V.K., *Direct Tax Laws* (2010).
4. Avatar Singh, *Law of Contract and Specific Relief*, Eastern Book Company, Lucknow (2009).
5. Avatar Singh, *Introduction to Law of Negotiable Instruments*, Eastern Book Company, Lucknow (2009).
6. N.D. Kapoor, *Mercantile Law*, 2005 Sultan Chand & Sons, New Delhi (2009)
7. S.K. Tuteja, *Business Law for managers*, 1st edition Sultan Chand & Sons, New Delhi (2007)
8. Majumdar A.K. and Dr. Kapoor G.K., *Company Law & Practice*, Taxmann Publications Pvt. Ltd., New Delhi (2007).
9. Pathak, A., *legal aspects of Business* Mc Graw Hill (2007).
10. PC Tulsian, *Business Law*, Tata McGraw Hill Publishing Co. (2007).
11. MC Kuchhal, *Mercantile Law*, Vikas Publishing House Pvt Ltd. (2007).

PMB403 BUSINESS RELATIONSHIP AND ETHICS

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): None

Introduction to Business relationship: Concept of Business Relationship, Importance of Business Relationship, Difference between Customer Relationship Management and Business Relationship, Managing relationship with partners, Shareholder Relationship Management, Stakeholder Relationship Management, Managing Suppliers and Distributors Relationship.

The Dynamics of Business Network: Importance of Building Professional Network for Business Success, Rescuing Business with Network, Donor based fund raising for new startups, Ethical Business Lobbying, Cross Border Lobbying, Management of Social Responsibility Partnerships, Programs and Events, Media Management and Image Building.

Business Ethics: concepts and rationale underlying Business Ethics; Ethical theories in relation to business ethics; Ethical dilemmas: Sources and their resolution.

Corporate Governance: Meaning, Accountability Issues, The Concept of Corporate Citizenship and Its Stakeholders, Contextualizing Business Ethics

Recommended Books:

1. David Ford, *Investment Banking: Managing Business Relationships*, John Wiley & Sons (2003).
2. Kenneth Carlton Cooper, *Moving beyond CRM to maximize all your Business Relationships*, Amacom (2008).
3. John Timperley, *Network your way to success: The Secrets of Successful Business Relationships*, Piatkus Books (2010).
4. David Noun, *Relationship Economics: Transform your most valuable Business Contacts into Personal and Professional Success*, John Wiley & Sons (2008).
5. Andrew Crane and Dirk Matten *Business Ethics*, 2nd edition oxford, (2010).

PMB501 KNOWLEDGE MANAGEMENT

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| L | T | P | Cr |
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Prerequisite(s): None

Introduction to Knowledge Management: Knowledge society, from data to information to knowledge, Drivers of knowledge management, Intellectual capital, KM and learning organizations

Strategic alignment: Creating awareness, articulation, Evaluation and strategic alignment, Infrastructural development and deployment, Leadership, measurement and refinement, Role of CKO, Professional development in KM

Analyzing business environment: Knowledge audit and analysis, Designing KM team, creating KM system blue print, implementation, capture, store and sharing, KMS Standards, KM Metrics and Indicators, Incentive systems

Strategy, Organisation and Personnel for KM: Technology components, Intranet and Groupware solutions, Tools for collaborative intelligence, package choices, implementing security

Integration: Integrating with web-based and internal operational & support systems, change management, reward systems, continuous improvement

Recommended Book:

1. Awad, *Knowledge Management*, Pearson Education, New Delhi (2008).
2. Barnes, *Knowledge Management System*, Thompson Learning, New Delhi (2008).
3. Mattison, *Web WWW and Knowledge Management*, Tata-McGraw Hill, N. Delhi (2008).
4. Tiwana, A., *The essential guide to knowledge management*, Pearson Education (2001).
5. Tiwana, A., *The Knowledge Management Tool Kit, Practical Techniques for Building a Knowledge Management System*, Pearson Education Publication (2000).
6. Nonaka, I., *Knowledge Management: Critical Perspectives on Business & Management*, Routledge (2008).
7. Kazou, I., Ikujiro Nonaka, *Knowledge Creation: New Challenges for Managers*, Oxford University Press (2009).

PMB502 STRATEGIC MANAGEMENT

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| L | T | P | Cr |
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Prerequisite(s): None

Introduction to Corporate Strategy: An overview of formulation and implementation of strategy (including various M's of strategy formulation and implementation), Mission (including various approaches to business model)

Environmental Analysis: Various tools of analysis, Corporate resources and core competencies, Personal goals and aspirations of top management, Social responsibility and corporate governance

Corporate Strategy: Diversification and vertical integration, Execution of corporate strategy, strategic alliance and acquisitions

Business Level Strategies: Various technologies for BLS, Functional level strategies, Strategic alternatives, Models for development of strategic alternative

Strategy and Technology: Evaluation of strategy, Implementation of strategy, Organization structure and strategy

Recommended Books:

1. *Hunger & Wheelen, Essentials of Strategic Management, Prentice Hall of India, (2006).*
2. *Hitt & Hoskisson, Strategic Management: Competitiveness and Globalization, South Western Thomson, (2006).*
3. *Hill and Jones, Strategic Management, Dreamtech Press India, Indian Adaptation, (2006).*
4. *Porter, ME, Competitive Advantage, The Free Press, New York, (1985).*
5. *Thompson, Strickland & Gamble, Strategic Management: Concepts and Cases, Tata McGraw Hill, (2005).*
6. *Ghosh, P.K., Strategic Planning and Management, Sultan Chand & Sons, New Delhi, (2000).*
7. *McCarthy, Minichiello & Curran, Business Policy and Strategy – Concepts and Readings, AITBS Publishers & Distributors (Regd.), Delhi, (2000).*
8. *Gupta, Gollakota and Srinivasan, Business Policy and Strategic Management – Concepts and Application, Prentice Hall of India, (2006).*
9. *Pitts, Strategic Management : Building and Sustaining Competitive Advantage, South Western Thomson, (2004).*

PMB601 ENTREPRENEURSHIP

| L | T | P | Cr |
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Prerequisite(s): None

Overview: Entrepreneurship and its Significance, Role of Entrepreneur in Economic Development, Achievement and Motivation.

Attributes: Personality of an Entrepreneur, Attribute with Special Relation to Innovation, Leadership, Risk Taking Abilities and Interpersonal Skills.

Emerging Issues: Viability and Profitability, Dynamics of Growth, Industrial Sickness and Turn-around Strategies, Promotion and Regulatory Agencies.

Case Studies: Case Studies on People and their Ventures, Implication and Impact of Internal and External Environment, Project Preparation and Profile.

Recommended Books:

1. Kao, J. J., *The Entrepreneurship*, Prentice Hall (2002).
2. Snefsky, L. R., *Entrepreneur are Made and not Born*, McGraw Hill (2001).
3. Holt, D., *Entrepreneurship*, Prentice Hall (2008).

PMB405 STRATEGIC HUMAN RESOURCE MANAGEMENT

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| L | T | P | Cr |
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Prerequisite(s): HUMAN RESOURCE MANAGEMENT

Human Resource Environment: Technology and Organisation Structure, Management of Diversity, Human Resource Outsourcing, Global Competition, Global Sourcing of Labour.

Investment perspective of HR: Investment in Training & Development, Investment Practices for Improved Retention, Non-traditional Investment Approaches: Investment in Disabled Employees, Employee Assistance Programmes etc.

Strategy and HR Planning: Importance of Human Resources to Strategy, Overview of Theoretical Foundations of Strategic Concepts, Strategy Driven Role Behaviors and Practices, Integration of Strategy and HR planning, Determinants of Integration and Problems with Integration.

Strategy Implementation and Workforce Utilization: Selection of Employees, Strategically Oriented Performance Management and Compensation Systems. Role of Strategic HR Leader, Future Roles and Leadership Competencies; Managing Workforce Diversity, Cultural Issues of Expatriates.

Recommended Books:

1. Kandula S. R., *Strategic Human Resource Development, Eastern Economy Edition-Prentice Hall of India (2001).*
2. Boxell and Purcell, J., *Strategy And Human Resource Management. Palgrave Mcmillan, (2003).*
3. Mello, J. A., *Strategic Human Resource Management, Thompson Learning, Cincinnati (2002).*
4. Rothwell, W. J., Prescott, R. K. and Taylor, M. W., *Strategic Human Resource Leader, Jaico Publishing House, (2005).*
5. Purcell, J., *Human Resource Management: A Critical Text, Thompson Learning (2001).*

PMB406 LEADERSHIP SKILLS

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| L | T | P | Cr |
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Prerequisite(s): HUMAN RESOURCE MANAGEMENT

Individuals as Leaders: What is Leadership, Myths that hinder leadership, Who is leader?

Leadership Traits: Personality Traits of Effective leaders, Emotional intelligence and leadership, Theory X and Y, Theory X and Y attitudes, Case Studies.

Leadership skills: Learning from Experience, Communication Listening, Assertiveness Guidelines for Effective management, Building Technical Competencies, Building Effective Relationship with Superiors and Peers, Building Credibility, Providing Constructive Feedback, Punishment, Delegating, Building High performance Teams, Development Planning, Coaching, Empowerment, Case Studies.

Team Leadership: Use of Teams in Organizations, Types of Teams, Decision Making in Teams, Leadership Skills for Effective Team Meetings, Self Management Teams, Changing Role of Leadership in Self Managed Teams, Case Studies.

Charismatic and Transformational Leadership: Charisma, Locus of Charismatic Leadership, Behavioral Components of Charisma, Charismatic Leadership, Effect of Charismatic Leadership, Qualities of Charismatic Leaders, Charismatic Versus Transformational Leadership, Transformational Leader behaviors and Attributes, Case Studies.

Recommended Books:

1. Lussier, Robert N and Achua Christopher, *Effective Leadership*, 3rd Edition, Cengage Learning India (2007).
2. Robert, Hughes, Ginnet Robert C. and Curphy, Gordon J "Leadership" 6th Edition, Tata McGraw Hill (2008).
3. Richard, Daft L., *Leadership*" South Western Cengage Learning (2005).

PMB407 COMPENSATION MANAGEMENT

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 0 | 0 | 3.0 |

Prerequisite(s): HUMAN RESOURCE MANAGEMENT

Introduction to Compensation: Compensation Defined, Goals of Compensation System, Compensation Strategy Monetary & Non-Monetary Rewards, Intrinsic Rewards Cafeteria Style Compensation, Fringe Benefits and Supplementary Compensation

Compensation for Workers: Wage Theories, Evolution of Modern Day Labor Force, Incentive Plans, ESOP's, EVA Reward Management in TNC's, Discrimination in Labor Market, Quality in Labor Market.

Compensation for Chief Executives and Other Employees: Guidelines of Companies Act Relating to CEO and Other Executives Compensation, Different Components of Compensation Package.

Job Evaluation, Job Description and Job Specification: Job Analysis & Its Process, Methods of Job Evaluation, Internal and External Equity in Reward Management, Role of Wage Board & Pay Commissions, International Compensation, Knowledge Based Compensation, Team Compensation, Competency Based Compensation

Recommended Books:

1. Henderson, Richard I., *Compensation Management: Rewarding Performance*. Prentice Hall of India (2004).
2. Bergmann & Thomas, J., *Compensation Decision Making*. Harcourt College Publications (2003).
3. Micton, R., *Handbook of Wage and Salary Administration*. London (2002).
4. Venkatratnam, C.S., *Rethinking Rewards and Incentive Management*. Excel Books (2002).

PMB503 INTERNATIONAL HUMAN RESOURCE MANAGEMENT

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| L | T | P | Cr |
| 3 | 0 | 0 | 3.0 |

Prerequisite(s): HUMAN RESOURCE MANAGEMENT

Introduction to IHRM: Definition, Approaches to IHRM, Models of IHRM, Models of SHRM in Multinational Companies.

Internationalization of HRM: Socio-cultural context, Organizational processes and dynamics and IHRM: Role of culture, Culture and employee management issues, Linking HR to International expansion strategies.

Strategies for International Growth: Global integration-rationale, approaches and limitations, Mastering expatriation, beyond the traditional expatriate model, the limits of global integration, Becoming locally responsive: The roots, understanding, responding to diversity.

Recruitment, Selection and staffing in International context: International Managers- parent country nationals, third country nationals, host country nationals, Selection-methods, approaches to multinational staffing decisions, recruitment methods.

Performance Management: Performance management-concept, cycle, models, performance and appraisal in IHRM, issues and challenges in international performance management

Training and development in international context: International training and development- Current scenario, nature and types, knowledge Transfer in multinational companies.

International Compensation: Forms of compensation and compensation policy, international compensation approaches and practices, social security systems across the countries.

International Labour Relations: Key issues, response of labour unions to MNCs.

HRM practices in different countries- Japan, USA, UK, Turkey, Middle East, India and China.

Recommended Books:

1. Barsoux, Evans, P., *The Global Challenge-Framework for International Human Resource Management*, Tata McGraw Hill Irwin (2008).
2. Dowling, Peter J. and Welch, Denise E, *International Human Resource Management*, Cengage Learning (2008).
3. Aswathappa K. and Das, Sadhna, *International Human Resorce Management*, McGraw Hill (2006).
4. Edwards, Tony and Rees, Chris, *International Human Resource Management*, Person Education (2005).
5. Tayeb, Monir H, *International Human Resource Management*, Oxford University Press (2005).
6. Rao, P L, *International Human resource Management*, Excel Books (2004).

PMB504 LABOUR LAWS

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 0 | 0 | 3.0 |

Prerequisite(s): HUMAN RESOURCE MANAGEMENT

Labour Laws:

The factory Act, 1948

Bonded Labour System (Abolition) Act, 1976

Child Labour (Prohibition and Regulation) Act, 1986

Payment of wages Act, 1936

Minimum Wages Act, 1948

Payment of Bonus Act, 1965

Recommended Books:

1. Jain, S.P., Rai, Dhanpat and Co., *Industrial and Labour Laws* (2007).
2. Srivastava, S. C., *Industrial Relations and Labour Laws*, Vikas Publishing House Pvt. Ltd (2008).
3. Kapoor, N. D., *Handbook of Industrial Law*, Sultan chand and Sons (2008).

PMB505 HUMAN RESOURCE PLANNING AND DEVELOPMENT

| L | T | P | Cr |
|---|---|---|-----|
| 3 | 0 | 0 | 3.0 |

Prerequisite(s): HUMAN RESOURCE MANAGEMENT

Introduction: Introduction to HRP, Objective and Importance of HRP

Planning and Forecasting: Forecasting personnel needs, process of HRP, responsibility of HRP, forecasting supply of inside and outside candidates, ageing workforce, diverse workforce.

Job Analysis and Job Description: Methods and uses of job analysis, writing job description, writing job specifications.

Human Resource Development: An overview, human resource development strategies, HRD expenses, motivational aspects of HRD, development supervision, counseling and mentoring.

Comparative HRD Experiences: Overview in govt. and public systems, HRD in service industry.

Main Issues in HRD: HRD culture and climate, HRD for workers, HRD/OD approaches to IR, emerging trends and perspectives.

Recommended Books:

1. Rao, VSP, *Human Resource Management, 2nd Ed., Excel Books, New Delhi 2009.*
2. Dessler, Gary, and Varkkey, Biiu, *Human Resource Management, 11th Ed., Pearson, New Delhi (2008).*
3. Noe, Raymond A., Hollenbesk, J., Gehart, B., and Wright, P. M., *Fundamentals of HRM, 2nd Ed., Tata McGraw Hill (2007).*
4. Rao, T.V. and E. Abraham, *HRD Climate in Indian Organizations, Oxford and IBH, New Delhi (2007).*
5. Rao, T.V. and Pereira, *Recent Experiences in HRD, Oxford and IBH, New Delhi (2008).*
6. Worner, *HRD: Foundations, Framework and Applications, Cengage Learning, New Delhi (2008).*

PMB602 SOCIAL SECURITY AND LABOUR WELFARE

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): HUMAN RESOURCE MANAGEMENT

The Concept of Social Security: Social Assistance and Social Insurance, Evolution of Social Security, Social Security in Other Countries, USA, Japan ,Germany, New Zealand And Sweden.

Social Security Laws: The Workman's Compensation Act, 1923, Brief Introduction to Employee's State Insurance Act, Maternity Benefit Act and Employees Provident and Miscellaneous Provisions Act.

Concept of Labour Welfare: Definition, Scope and Objectives, Evolution of Labour Welfare, Statutory and Voluntary Welfare Provisions, Industrial Safety, Health and Hygiene, Workers Education Scheme. ILO and Labour Welfare, Social Responsibility of Industry and Trade Unions.

Recommended Books:

1. *Sharma, A. M., Aspects of Labour welfare and Social Security, Himalaya Publishing House (2008).*
2. *Ahmed, Ethisham, Social Security in developing countries, OVP, New Delhi,(1999).*

PMB603 CHANGE MANAGEMENT

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Prerequisite(s): HUMAN RESOURCE MANAGEMENT

Basics of Change Management: The need for bringing organizational change, Dimensions of technological change, Social and behavioural change, The nature of organizational change, Affects of organizational change on work force.

Organization Culture and Change: Understanding corporate culture, non-adaptive cultures, Preparing the organizations for change, Resistance to change and the strategies to cope with it.

Approaches: Holistic approaches, TQM, process re-engineering, The learning organization, Role of IT in change management.

Implementation: The process of implementation of change, Models of management of change.

Recommended Books:

1. Mirza S.Saiyadan, *Organisational Behaviour*, Tata McGraw Hill (2003)..
2. Paton, Robert A and McCalman, James, *Change Management: A Guide to Effective Implementation*, Response Books (2000).
3. Sethi, *Organisational Transformation Through Business Process Reengineering*, Pearson Education.
4. Horn, Art, *Gifts of Leadership: Team Building through Focus and Empathy*, Macmillan India (1998).
5. Venkataratnam, C.S., *Negotiated Change -Collective Bargaining, Liberalisation and Restructuring in India*, Response Books (2003).
6. Nilakant, V. and Ramnarayan, S., *Managing Organisational Change*, Response Books (2003).
7. Ramnarayan, S., Rao, T.V. and Singh, Kuldeep (Ed.): *Organization Development*, Response Books (2003).
8. Weiss, Joseph W., *Organisational Behaviour and Change: Managing Diversity, Cross Cultural Dynamics and Ethics*. Thomson Learning (2001).

PMB604 INDUSTRIAL RELATIONS AND LABOUR POLICY

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Prerequisite(s): HUMAN RESOURCE MANAGEMENT

Industrial Relations: Concepts, theories and evolution, Anatomy of Industrial conflicts, The state and IR policy - Industrial policy resolution 1991, National commission on Labour and Industrial Relations policy, Works committees and Joint Management councils.

Resolution of Industrial Conflicts: Tripartite and Bipartite bodies, Standing orders and Grievance Procedure, The code of discipline, Settlement machinery - Conciliation, Arbitration and adjudication.

Acts: Essentials of Industrial Employment (Standing Orders) Act, 1946 and The Industrial Disputes Act, 1947.

Recommended Books:

1. *Mamoria and Gankar, Dynamics of Industrial Relations, Himalaya Publishing House (2007).*
2. *VP Michel, Industrial Relations in India and workers' participation in Management, Himalaya Publishing House (2008).*
3. *M. V. Pylee and Asimon George, Industrial Relations and Personnel management, Vikas Publishing House Pvt. Ltd (2008).*

PMB408 CONSUMER BEHAVIOUR

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Prerequisite(s): MARKETING MANAGEMENT-II

Introduction to Consumer Behavior: Consumer Decision Making Process-Stages in Consumer Decision Making, Models in Consumer Decision Making-Extensive Problem Solving (EPS), Limited Problem Solving (LPS), Routinized Response Behaviour (RRB), Purchase and Post Purchase Behaviour. Factors Influencing Consumer Behavior

Consumer as an Individual: Consumer Needs and Motivation, Motivation Measuring Methods, Personality and its Nature, Personality Theories, Behavioural Learning Theories, Characteristics of Memory System and Retrieval of Information, Attitude and Attitude Change

Social impact on the consumer: Characteristics of a Group, Types of Groups, Consumer Relevant Groups, Reference Groups, Promotional Application of Reference Group Concept, Family, Family Decision Making, Family Life Cycle (FLC), Marketing Application of FLC Analysis, Social Class Categories and Application of Social Classification on Consumer Behaviour

Culture and Consumer Behavior: Characteristics of Culture, Subculture, Cross Cultural Marketing, Personal Influence and Opinion Leadership, Dynamics of Opinion Leadership Process, Influence of Opinion Leaders in the Promotional Strategy of a Firm Adoption and Diffusion of Innovation, Profile of Consumer Innovators and the Marketing Applications

Impact of environment on Consumer Behaviour: Temporal Effects, In-store Merchandising, Store Layout and Ambience, Behavioural Pattern of Indian Consumer, Cultural and Religious Issues in Marketing in India

Recommended Books:

1. Leon G. Schiffman, S. Ramesh Kumar, Leslie Lazar Kanuk, *Consumer behavior*, Pearson (2010)
2. Roger D. Blackwell, James F. Engel, Paul W. Miniard, *Consumer Behaviour*, Cengage (2008)
3. Del I Hawkins, *Consumer Behaviour: Building Marketing Strategy*, Tata Mgraw Hill (2005)
4. Michael R. Solomon, *Consumer Behaviour: Buying, Having, and Being*, Phi Learning (2010)

PMB409 SALES AND DISTRIBUTION MANAGEMENT

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Prerequisite(s): **MARKETING MANAGEMENT-II**

Sales Management: Nature and scope, personal selling objectives, recruitment and selection, sales force management, sales training, compensation plans, motivation, sales meetings and contests, territories and quotas, sales evaluation and cost analysis

Distribution Management: Overview of marketing channels and their structure, functions of channels, channel intermediaries, logistics, channel planning, managing channels, channel policies, channel management and information systems, assessing the performance of channel members, international marketing channels

Recommended Books:

1. Panda, T.K., and Sahadev, S., *Sales and Distribution Management*, Oxford University Press (2005).
2. Havaladar, K.K., and Cavale, V.M., *Sales and Distribution Management*, Tata McGraw Hill (2008).
3. Coughlan, A. T., Anderson, E., Stern, L. W., El-Ansary, A. I., *Marketing Channels*, Pearson (2007).
4. Manning, G. L. and Reece, B. L., *Selling Today Creating Customer Value*, Pearson (2007).

PMB410 INTEGRATED MARKETING COMMUNICATIONS

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Prerequisite(s): MARKETING MANAGEMENT-II

Role of Promotional Mix in Marketing: Understanding corporate communication, Difference between communication and PR, Seven C's of communication, Overview of Integrated Marketing communications

Fundamental Marketing Decisions: Targeting, Positioning, Objective setting and budgeting, Ethical regulatory and environmental issues in Marketing communications.

Advertising: Concepts, Types, forms and Importance, Role of advertising in the Marketing Process, Legal, Ethical and Social Aspects of Advertising, Creating effective advertising Message, selecting message appeal and endorsers, Assessing advertisement effectiveness, Planning for and analyzing advertising media, Internet advertising, DAGMAR Approach, Determination of Target Audience, Measurement of Advertising Effectiveness, Role of Creativity in Advertising.

Other Communications: Marketing-Oriented Public Relations, Sales promotion and the role of trade promotions, consumer oriented public relations, Sampling and couponing, premiums and other promotional methods, Storage signage and Point of purchase communications.

Recommended Books:

1. George E. Belch and Michael A. Belch, *Introduction to Advertising and Promotion, 3rd ed., Irwin Publishers, Chicago (USA), (2005).*
2. W.A. Arens, *Contemporary Advertising, Tata McGraw Hill, New Delhi, (2008).*
3. C.H. Sandage, V. Fryberger and K. Rotzoll, *Advertising, AITBS, Delhi, (2004).*
4. Rajeev Batra, Johan G. Myers and David A. Aaker, *Advertising Management, 6th ed., (2007).*
5. C. V. Narasimha Reddi, *Effective Public Relations and Media Strategy, PHI Learning, New Delhi (2007).*
6. Marla R Stafford and Ronald J Faber, *Advertising, Promotion and New Media, PHI, New Delhi (2007).*

PMB506 MARKETING OF SERVICES

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Prerequisite(s): MARKETING MANAGEMENT-II

Overview: Introduction to Service Marketing, Business Models of Service Companies.

Emerging Issues: Emerging of Service Economy, Nature of Services, Good and Services Marketing, Marketing Challenges in Service Business, Marketing Framework for Service Business, Positioning the Servicescape, Managing the Servicescape, Role of Contact Personnel, Developing Customer Focused Personnel, Communicating the Service Offer, Service Audit, Value Audits.

SM Strategy: Value Identification Approach, Customer Service Strategy, Success and Failure Analyses, Consumer Expectations of Services, Principles of Services Quality, Measuring Service Quality, the Gap Model of Service Quality.

Operational Issues in SM: Improving Service Process, Problems with Service Operations, Solutions to Service Problems, New Product Development.

Recommended Books:

1. Zeithaml, V. and Gremler, D.D., Bitner, M.J., *Services Marketing*, McGraw Hill (2005).
1. Lovelock, C. and Wirtz, J., *Services Marketing*, Pearson Education (2006).

PMB507 PRODUCT AND BRAND MANAGEMENT

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Prerequisite(s): MARKETING MANAGEMENT-II

Product Management: Product concepts, product planning, portfolio analysis, product market strategies, product life cycle stages and strategies, product evaluation, product differentiation and positioning, benefit segmentation, new product development, product management, test marketing.

Brand Management: Concept of a brand, brand hierarchy, brand personality, brand image, brand identity, brand positioning, brand equity, brand extension, brand customer relationships, brand loyalty, managing brands, brand creation, brand portfolio, brand assessment and revitalization, financial aspects of brands, branding in different sectors.

Recommended Book:

1. Baker, M., and Hart, S., *Product Strategy and Management*, Pearson Education (2009).
2. Lehmann, D.R., and Winer, R.S., *Product Management*, Tata McGraw Hill (2005).
3. Mukherjee, K., *Product Management*, Prentice hall of India (2009).
4. Majumdar, R., *Product Management in India*, Prentice Hall of India (2006).
5. Sengupta, S., *Brand Positioning*, Tata McGraw Hill (2005).

PMB508 CUSTOMER RELATIONSHIP MANAGAMENT

| L | T | P | Cr |
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Prerequisite(s): MARKETING MANAGEMENT-II

Overview: Customer Relationship Management (CRM) and e-CRM..

Concepts and Applications: Channel Management and CRM, e-Channel Management, Business Process Models and CRM. Three Ws of Technology, Five Engines of e-CRM, Market Intelligent Enterprise.

Technology Issues in CRM: Sales Force Automation, Marketing Automation, Personalization and e-CRM.

Emerging Areas: Call Centre Management, Partner Relationship Management, e-CRM Strategy, Implementation of e-CRM in an Organization.

Recommended Books:

1. Greenberg, P., *Capturing and Keeping Customers in Internet Real Time*, Tata McGraw Hill (2001).
2. Brown, S., *Customer Relationship Management - A Strategic Imperative in the World of e-Business*, John Wiley (2000).
3. Gosney, J. W. and Boehm, T.P., *Customer Relationship Management Essentials*, PHI (2001).

PMB605 INTERNATIONAL MARKETING

| L | T | P | Cr |
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Prerequisite(s): MARKETING MANAGEMENT-II

Overview: Definition, Concepts, role and significance of international marketing, distinction between international trade, marketing and business.

Markets: Economic environment, market Segmentation on a global scale, risk analysis in international markets, appropriate market, product, promotion and pricing in overseas markets, international product life cycle, joint ventures and turnkey projects.

Institutions: International institutions, economic groupings, fiscal and non-fiscal barriers, Bi-lateral trade agreements, Commodity Agreements and GSP, India and World Trade, Constraints in International Marketing, Direction and Quantum of India's Exports.

Distribution Channels and Exports: Distribution channels in international marketing, EXIM policy and incentives to exporters, procedure and documentation of exports, infrastructure facilities to exporters, export finance, role and functions of ECGC, Export Promotion Councils, Export Houses, EXIM Bank.

Recommended Books:

1. Cateora, P.R., and Graham, J.L., *International Marketing*, Tata McGraw Hill (2008).
2. Joshi, R.M., *International Marketing*, Oxford University Press (2005).

PMB606 B2B MARKETING

| L | T | P | Cr |
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Prerequisite(s): MARKETING MANAGEMENT-II

Overview: Nature and scope, guiding principles of business market management, differences between B2B and B2C marketing, nature of demand in B2B markets.

Concepts: understanding value, understanding firms as customers, segmentation of B2B markets, B2B services.

B2B Strategy and Marketing mix: crafting market strategy, managing market offerings, new offerings, business channel management, logistics, B2B pricing, acquiring customers, sustaining reseller partnership, communication and sustaining customer relationship.

Recommended Books:

1. Anderson, J.C., and Narus, J.A., *Business Market Management*, Pearson Education (2007).
2. Corey, E. Raymond, *Industrial Marketing: Cases and Concepts*, Englewood Cliffs (2004).
3. Webster, F. E., *Industrial Marketing Strategy*, John Wiley (2005).
4. Gross, A. C., *Business Marketing*, Boston, Houghton Mifflin (2007).
5. Hill, Richard, *Industrial Marketing*, Homewood Illinois, Irwin (2007).

PMB607 RURAL MARKETING

| L | T | P | Cr |
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Prerequisite(s): MARKETING MANAGEMENT-II

Rural Market in India: An Overview, Profiles of urban/ rural customers, and differences in their characteristics, Features of rural market, Products & services in rural markets, Differentials at Core, tangible and augmented stages, Pricing strategies for rural markets, factors influencing rural pricing.

Channel of rural distribution and trade management: Rural logistics and transportation, Journey cycles, organized retailing in rural India, rural communication & Advertising, role of ICT, sales promotion strategies for rural markets.

Rural Marketing: Rural Sales-force management, Rural Marketing research, Agri-inputs Marketing - An overview of Fertilizers, Seeds, Agro-chemicals and Farm equipment markets. Regulated markets & APMCs.

Role of agricultural finance & credit: role of commercial & cooperative banks, NABARD.

Role of cooperatives in rural economy: APEDA, NAFED, MARKFED, HPMC.

Future of rural marketing: Bottom of pyramid models.

Recommended Books:

1. Arora, R.C., *Integrated Rural Development*, S Chand (1979).
2. Desai, Vasant, *Rural Development*, Himalaya Publisher (1988).
3. Krishnamacharyulu, CGS, *Rural Marketing-Text and Cases*, Pearson Education.
4. Porter, Michael E., *Competitive Strategy*, Free Press, New York (1980).
5. Prahlad, C.K., *Bottom of Pyramid*, Wharton School Publishing (2005)
6. Rudra, Ashok, *Indian Agricultural Economics, Myths and realities*, Allied, New Delhi (1982).

PMB411 SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

| L | T | P | Cr |
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Prerequisite(s): FINANCE-II

Introduction to Investment: Concept, Objectives & Alternatives; Selection of Investment in Global Market; Return & Risk.

Introduction to Indian Capital Market: Overview of Capital Market and institutional Structure; Equity Market, Debt Market, Money Market; SEBI and its role; Stock Market Indicators.

Introduction to Security Analysis: Valuation of Fixed and Variable Income Securities, Fundamental Analysis, Technical Analysis, Efficient Market Approach.

Introduction to Portfolio Management: Concept, Composition, Process, Objectives, Risk & Return of Portfolio, An Optimum Portfolio Selection, Markowitz Portfolio Theory, Capital Asset Pricing Model, Arbitrage Pricing Theory, Characteristics Lines.

Introduction to Portfolio Management Framework: Portfolio Performance Evaluation: Sharpe Measure, Treynor Measure, Fama Measure, Portfolio Revision, Portfolio Rebalancing, Guidelines for Investment Decision, Portfolio Management in India.

Recommended Books:

1. Chandra, P., *Investment Analysis and Portfolio Management*, Tata McGraw Hill (2008).
2. Donald E. Fisher & Ronald J. Jordan, *Security Analysis and Portfolio Management*, Prentice Hall of India (2005).
3. Avadhani, V.A., *Security Analysis and Portfolio Management*, Himalaya Publishing House, 8th ed.
4. Pandian, Punithavathy, *Security Analysis and Portfolio Management*, Vikas Publishing House (2006).
5. Indian Institute of Banking and Finance, *Securities Markets and Products*, 2nd ed.
6. Luenberger, David G., *Investment Science*, Oxford University Press, 2nd ed.

PMB412 WEALTH MANAGEMENT AND PERSONAL FINANCIAL PLANNING

| L | T | P | Cr |
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Prerequisite: FINANCE-II

Wealth Management: Evolution of Wealth Management, Wealth Management and Personal Financial Planning, Wealth Management Service Providers, Ethics in Wealth Management, RBI Regulations on Wealth Management, Recent Developments in Wealth Management.

Investment planning: Ascertaining Investment objectives, Quantifying Investment Objectives, Exploring Investment Options, Designing Investing plans, Online Investment, Tracking and Reviewing Investment, Investment on Tradable and Non-Tradable Securities.

Insurance Planning: Estimations and Quantification of Insurance requirements, Products and Functioning of Life Insurance and Non-Life Insurance Business, Choosing perfect Life Insurance Product, Non-Life Insurance in Personal Financial Planning.

Retirement, Estate and Tax Planning: Rules and Regulations of New Pension Scheme, Pension Fund Regulatory Development Authority, Provident Fund Organisation and its rules regulation on Management of Private Provident Funds, Estate Planning, Estate Financing, Estate management, Personal Tax Planning, Tax Computation and Exemptions.

Recommended Books:

1. *Gitman et al., Personal Financial Planning, 11th e, South-Western College Pub, 2007,*
2. *Keown, Arthur J., Personal Finance, Pearson Education.*
3. *The Citibank Guide to Building Personal Wealth, John Wiley and Sons*

PMB413 CORPORATE TAX PLANNING

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Prerequisite: FINANCE-II

Introduction to Income Tax Act: Basic Concepts of Income Tax; Determination of Residential Status & Incidence of Tax of a Company; Basic understanding of Income under different Heads of Income; Incomes exempt from Tax; Clubbing of Income; Set off and carry forward of losses, Deductions from gross total income; Computation of Tax Liability of Companies; Minimum Alternate Tax on companies; Tax deduction / collection at source; Double Taxation Avoidance Agreement Concept.

Tax Planning - I: Concept of Tax planning, Tax Avoidance, Tax Evasion & Tax Management, Tax planning with respect to Setting up a new business, Tax planning with respect to location and nature of business, Tax planning with Amalgamation and Merger of Companies, Tax planning with forms of business organization.

Tax Planning - II: Tax planning with respect to Financial Management – Capital Structure Issues & Issue of Bonus Shares, Tax Planning with managerial decisions like make or buy, own or lease, capital budgeting decisions, Replacement Decisions.

Recommended Books:

1. *Singhania Vinod K. & Singhania Monica, Students Guide to Income Tax, Taxmann Publication*
2. *Singhania Vinod K. & Singhania Monica, Tax Planning & Management, Taxmann Publication*
3. *Ahuja Girish & Gupta Ravi, Direct Tax Laws & Practice, Bharat Law House*
4. *Singhania Vinod K. & Singhania Kapil, Direct Taxes – Law & Practice, Taxmann*
5. *Ahuja Girish & Gupta Ravi, Corporate Tax Planning & Management, Bharat Law House*
6. *E. A. Srinivas Corporate Tax Planning, Tata McGraw Hill*
7. *H. P. Ranina, Corporate Taxation, Orient Law House*
8. *Paolo M. Panteghini, Corporate Taxation in a Dynamic World, Springer*
9. *John E. Karayan, Charles W. Swenson, and Joseph W. Neff, Strategic Corporate Tax Planning, Wiley*

PMB509 INTERNATIONAL FINANCE

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Prerequisite(s): FINANCE-II

International Financial Environment: Challenge of International Finance, Finance Function in the Global Context, Global Financial Markets, Interest Rates in the Global Money Markets, International Monetary System, International Monetary Fund (IMF), International Liquidity and Special Drawing Rights (SDRs), Economic and Monetary Union (EMU).

Financial Risk: Overview of Exposure and Risk, Necessity of Financial Risk, Measuring Exposure Risk, Management of Currency Exposure.

Exchange Rates & Foreign Exchange Market: Introduction of Exchange Rate, Fundamental Parity Relationships, Structural Models of Exchange Rate Determination, Exchange Rate Forecasting and Exchange Rate of Rupee, Structure of Foreign Exchange Market, Mechanics of Currency Trading, Types of Transactions & Settlement Dates-Forward Contracts, Currency Futures and Options, Currency and Interest Rate Swaps, Exchange Rate Quotations and Arbitrage; Exchange Rate Regimes and the Forward Exchange Rates in India.

Financial Management in Multinational Corporation: Long-Term Sources of International Financing, Short-Term Borrowing and Investment, Cash Management-Centralized Vs. Decentralized, Cash Transmission, Methods of Payment, Capital Budgeting, Cost of Capital and Capital Structure of the Multinational Corporation.

Recommended Books:

1. Apte, Prakash. G., *International Finance- A Business perspective*, Tata McGraw Hill (2008), 8th ed.
2. Shaprio, Alan. C., *Multinational Financial Management*, New Delhi, Prentice Hall of India (2008).
3. Albir, R.Z., *Exchange Risk and Corporate International Finance*, Macmillan, London.
4. Bhalla, V. K., *International Financial Management*, Anmol Publications, (2008), 9th ed.

PMB510 FINANCIAL DERIVATIVES

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Prerequisite(s): FINANCE-II

Introduction to derivatives: Types of Derivatives, History of derivatives, Derivative Markets, Derivatives Trading in India, Forwards and Future Markets, Valuation of Forwards and Futures, Hedging strategies by using Futures.

Introduction to Options: Types of Options, Valuation of Options-Binomial model and Black and Scholes Model, Option Greeks, Trading Strategies involving options, Strategies involving single option and stocks, Combinations, Spreads, Swaps, Valuation of Interest rate Swaps, Valuation of Currency Swaps.

Introduction to Interest Rate Derivatives: Bond Arithmetics and Analytics, Hedging and Speculation, Regulation and Compliance, Introductions Currency Derivatives, Foreign Exchange derivatives, Exchange Traded Currency derivatives, Strategies using Currency derivatives, Regulatory Framework.

Commodity Derivatives: Trading and regulations, Exotic Options, Collateralized Debt Obligations (CDOs), Credit Default Swaps (CDSs), RBI regulations on Credit Default Swaps, Role of Derivatives in recent global economic recession.

Recommended Books:

1. Hull, John C., *Futures Options and Other Derivatives*, Pearson Education (2008).
2. Head, Red, *Financial Derivatives: An Introduction to Forwards, Futures and Options*, Prentice hall of India (2005).
3. Vohra, N.D. and Baghi, B. R., *Futures and Options*, Tat McGraw Hill (2002).
4. Rajiv Srioatsava., *Derivatives and Risk management*, Oxford University Press (2010)

PMB511 PROJECT AND INFRASTRUCTURE FINANCE

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Prerequisite(s): FINANCE-II

Overview of Project Financing: Generation and Screening of Project Idea, Capital Expenditure in Projects, Importance and Difficulties, Sources of Project Financing in India and Abroad, Financial Analysis for financing the projects, Analysis of Risks in Project financing.

Overview, Scope & Avenues of Infrastructure Finance: Infrastructure Finance Vs. Project Finance; Demand for Infrastructure Projects, Supply of Infrastructure Finance, Business and Major Players (Global and Indian), Products (Funded and Non-funded)–Types, Mezzanine Finance, Take-out Products-tax Implications, Role of FIs and Banks and Shift in portfolio of FIs and Banks, Process Flow Chart of Typical Infrastructure Projects – Process Flow for MOU Projects and Competitively Bid Projects.

Infrastructure Finance: Key Terms & Concepts, Types of Projects, Concession on agreements / License Agreements and Key Clauses therein, Key Contracts (EPC, O&M, Shareholders Agreement) and Key Clauses therein, Financial Closure, Role of Independent Regulators, and Key Risks in Infrastructure finance.

Infrastructure Projects Appraisal in Financial Institutions: Appraisal Process, Generic Issues, Internal Committees and Functions, Letter of Indent, Disbursement and Post-disbursement Process.

Recommended Books:

1. Chandra, Prasanna, *Project Planning, Analysis, Selection, Financing, Implementation & Review*, 9th edition, Tata McGraw Hill Publishing, (2008).
2. Sebastian, Morris, *Indian Infrastructure Report*, Oxford University Press, (2008).
3. S. Raghuram, *Infrastructure Development and Financing*, Macmillan, (2007).

PMB608 INVESTMENT BANKING AND FINANCIAL SERVICES

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Prerequisite(s): FINANCE-II

Investment Banking: Meaning and Scope of Investment Banking, Evolution of Investment Banking, Functions of Investment Banking, Issue Management, Financial Advisory, SEBI Regulations on Investment Banking.

Management of Public Offers: Pre Issue Management, Appointment of Lead Manager and Book Running Manager, Price Fixation, Preparation of Red herring Prospectus, Appointment of Collecting Bankers and Marketing of Issue, Post Issue Management, Allotment of Securities, SEBI Regulations on Pre and Post Issue Management.

Private Placement and Corporate Advisory: Raising Funds through Private Placement and QIP, Rights Issue, Portfolio management, Financial Advisory to Corporate World, Funding Mergers, Acquisitions and Takeovers, SEBI Regulations on Portfolio Management and Corporate Advisory.

Financial Services: Mutual Funds, Structure and functioning of Mutual Fund, Different kinds of mutual fund schemes, Investment regulations of Mutual Funds, Insurance Companies, IRDA Regulations, Venture Capital, Private Equity.

Recommended Books:

1. *Subramanyam, Pratap G, Investment Banking: An Odyssey in High Finance, TMH (2007).*
2. *Verma, J.C., A Manual of Merchant Banking, Bharat Law House (1996).*
3. *SEBI Act 1992.*

PMB609 FINANCIAL ENGINEERING AND RISK MANAGEMENT

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Prerequisite(s): FINANCE-II

Introduction to Financial Engineering: Meaning and Scope of Financial Engineering, Tools of Financial Engineering, Financial Engineering and Financial Analysis, Factors Contributing to Growth of Financial Engineering.

Financial Engineering Process and Strategies: Overview of Financial Engineering Process, Globalization and Financial Engineering, Financial Engineering and Monetary Policy, Role of Financial Engineer in Developing Financial Securities and Restructuring of Organizations.

Risk Management: Changing Face of Liquidity Management, Asset Liability Management (ALM), Risk Management Issues and Instruments, Liquidity Risk Management, Duration Method, Value at Risk (VaR).

Recommended Books:

1. Marshall, John F. and Bansal, Vipul K., *Financial Engineering*, Prentice Hall of India (2006).
2. Kane, Alex, Marcus, Alan J. and Mohanti, Pitabhus, *Investments*, Tata McGraw Hill (2007).

PMB610 CORPORATE RESTRUCTURING

| L | T | P | Cr |
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Prerequisite(s): FINANCE-II

Corporate Restructuring: Meaning of Corporate Restructuring, Motives behind Corporate Restructuring, Strategic Alternatives for Corporate Restructuring, Environment Analysis.

Mergers: Meaning of Merger, Different Kinds of Mergers, Motives behind Mergers, Merger Process, Regulations of Companies Act on Mergers, Recent Mergers in Indian Corporate World, Financial Evaluation of Mergers.

Acquisitions: Concept of Acquisitions and Takeovers, SEBI Regulations on Substantial Acquisition of Shares, Corporate Battles in Acquisitions and Takeovers, Defensive Mechanism and Strategies of Target Company.

Strategic Alliance: Evolution of Strategic Alliance Concept, Motives behind Strategic Alliance, Different Forms of Strategic Alliance, Case Studies on Recent Strategic Alliances.

Recommended Books:

1. Verma, J.C., *Corporate Mergers Amalgamations and Takeovers: Concept, Practice and Procedure*, Bharat Law House (2008).
2. Pandey, I.M., *Financial Management*, Vikas Publications (2008).

PMB414 PROJECT MANAGEMENT

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Prerequisite(s): OPERATIONS MANAGEMENT

Project Management Concepts: Defining Project & Project Management, characteristics of a project, need for project management, roles of project managers in organizational environments, Project Planning and Selection, Various methods of project selection, Project lifecycle, roles of systems analysis and systems management in the life cycle of a project, roles and responsibilities of project team members, division of responsibility and authority.

Project Time and Cost Estimates: Work Breakdown Structure Project Time Management, Network diagrams, Gantt chart, Critical Path Method, Programme Evaluation Review Technique, COCOMO Model, Critical Chain Scheduling, Project Crashing.

Project Evaluation and Termination: Project Monitoring, Project Control, Periodic project performance evaluation audits, trade-off analyses, causes associated with project success and failure, Earned Value Management, Risk Management, Risk Mitigation, Risk Monitoring and Management, Risk Identification, project audit and project termination.

Recommended Books:

1. Gido, Jack and James P. Clement, *Successful Project Management*, Cengage Learning (2011).
2. Meredith, Jack and Samuel J Mantel Jr., *Project Management: A Managerial Approach*, John Wiley and Sons (2008).
3. Nicholas, John M., *Project Management for Business and Technology*, Pearson Education (2001).
4. Lee J. Krajewski and Larry P. Ritzman., *Operations Management*, Pearson Educations (2006).
5. Russell and Taylor, *Operations Management*, Wiley-India Edition (2007).
6. Gaither, N. and Frazier, G., *Operations Management*, Cengage Publications (2004).

PMB415 WORLD CLASS MANUFACTURING

| L | T | P | Cr |
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Prerequisite(s): OPERATIONS MANAGEMENT

The World Class Challenge: Meaning of “World Class”, Competing in World Markets, World Class Improvement Techniques, Reviewing Business Strategy, World Class Information Systems, The Rewards Developing a World Class Manufacturing Strategy: Assessing your manufacturing Operations, Developing your New Strategy, Making your New Strategy World Class.

Concepts: Reducing Lead Times, Reducing set up times, Resolving Inventory Problems, Improving Labour Flexibility, Designing for Manufacturing Efficiency, The Four Eras of Quality, Cost of Quality Analysis, Quality Improvement Techniques, Total Employee Involvement-Teamwork, Overcoming Resistance, Strategic Improvement Teams, Personal Commitment.

World Class Information Systems: Adapting to World Class Needs, Information for Planning and Control, Information for Monitoring, Managing the Change- The Goal, Progress by Stages, Be Prepared for set-backs, Be Patient.

Improved Brainstorming Methods: Basic Process, Improved Process, and The World Class Challenge-Where are you Now-Check List- Strategy and Marketing, JIT, TQ, TEI, WCIS, Managing the Change.

Monitoring World Class Performance: Activity based Costing, Monitoring Lead Time Performance, Monitoring Inventory Performance, Monitoring Supplier Performance, Other Monitoring Reports.

Recommended Books:

1. Lee J. Krajewski and Larry P. Ritzman., *Operations Management*, 2006, Pearson Educations.
2. Russell and Taylor, *Operations Management*, 2007, Wiley-India Edition.
3. Gaither, N. and Frazier, G., *Operations Management*, 2004, Cengage Publications.

PMB416 OPERATIONS IN SERVICE INDUSTRY

| L | T | P | Cr |
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Prerequisite(s): OPERATIONS MANAGEMENT

Service Strategy: Consumer Dimension, Brand Significance, Service Execution, Customer Satisfaction, Loyalty Business Dimension, Network Structure, Systems & Processes, I.T. Interface, Measurements & Control Revenues & Profitability, Drivers of Revenue, Known Opportunities, Exploring New Opportunities.

Listening to the Consumer: Consumer Service, Bringing Customer to the Centre, Call Centre Operations, Interfacing Front End with Back End, Designing Customer Satisfaction Surveys, Analysis of Surveys & Continuous Improvement, Service process design.

Service Quality: Warranties & Guarantees, Measurement & Control, Product & Process Improvements Quality of products, Continuous Improvement, launches & Introduction, Quality of Field Contacts, Alignment with Feedback, Segmented Services, Cross Category Learning's, Brand Enhancement Opportunities.

Innovation & Service Operations: Concepts, Brand & Business Opportunities, and Applications

Service Value Chain: Understanding & Concepts, Tracking, and Monitoring & Improvements.

Recommended Books:

1. Rust, Zahorik and Keiningham, *Service Marketing* (2006).
2. Robert Johnston and Graham Clark, *Service Operations Management (3rd Edition)*, Prentice Hall (2006).
3. Fitzsimmons and Fitzsimmons, *Service Management*, TMH (2006).

PMB512 LOGISTICS AND SUPPLY CHAIN MANAGEMENT

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): OPERATIONS MANAGEMENT

Introduction: Introduction and overview of supply chain management, Inbound and outbound logistics, Supply chain as a source of competitive advantage.

Inbound logistics: Buyer-Vendor co-ordination, Procurement, Vendor development, reduced sourcing and supplier partnership - benefits, risks and critical success factors, multi-level supply control.

Outbound logistics: Customer service, physical distribution planning, channel considerations, inventory strategies and management, transportation infrastructure and management, facility location, Materials handling.

Strategic considerations for supply chain: Supply chain design and performance measures, Porter's industry analysis and value-chain models, the concept of total cost of ownership, supply stream strategies, classification and development guidelines, measuring effectiveness of supply management, logistics engineering. Operations Research Models for operational and strategic issues in supply chain management; Bullwhip Effect and supply-chain management game.

Global Supply Chain Management: E-supply chain management, e-procurement, integrated supply chain and recent trends in global supply chain.

Recommended Books:

1. *Simchi-Levi, D., Kaminsky, P., and Simchi-Levi, E., Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies, Irwin/McGraw Hill (2003).*
2. *Lee J. Krajewski and Larry P. Ritzman., Operations Management, 2006, Pearson Educations.*
3. *Russell and Taylor, Operations Management, 2007, Wiley-India Edition.*
4. *Gaither, N. and Frazier, G., Operations Management, 2004, Cengage Publications.*

PMB513 BUSINESS PROCESS REENGINEERING

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): ENTERPRISE RESOURCE PLANNING

Historical Background: Nature, significance and rationale of business process reengineering (BPR), Fundamentals of BPR.

Major Issues in Process Redesign: Business vision and process objectives, Processes to be redesigned, measuring existing processes, Role of information technology (IT) and identifying IT levers.

Designing and Building a Prototype of the New Process: BPR phases, Relationship between BPR phases.

Typical BPR Activities within Phases: Change management, Performance management, and programme management.

BPR and Continuous Improvement: Co-ordination and complementary efforts, IT capabilities and their organizational impacts, Implementation of BPR, Stages of implementation and critical aspects, Case studies on BPR.

Recommended Books:

1. Jayaraman, M.S., *Business Process Re-engineering*, Tata McGraw Hill (1994).
2. Coulson Thomas, C., *Business Process Re-engineering: Myth and Reality*, Kogan Page (1994).
3. Pepppard, J. and Rowland P., *The Essence of Business Process Re-engineering*, Prentice Hall of India. (1995).

PMB514 TOTAL QUALITY MANAGEMENT AND SIX SIGMA

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): OPERATIONS MANAGEMENT

Introduction: Concept of quality, Definition, Dimension of Quality, Evolution of TQM, Components of TQM, Developing Quality Culture. **Customer Focus and Satisfaction:** Meeting Customer Needs and Expectations, Translating Customer needs into Requirements (Kano model) using customer complaints. **Philosophy of TQM:** Philosophies of Deming, Crosby, Juran and Taguchi, PDSA cycle, Costs of Quality, Measuring quality costs, Criteria for Malcom Balrige Quality Award.

Pre-requisite for TQM: Quality Orientation, Leadership, Employee Involvement, Role of ISO9000 QMS, Organizing for Quality. **SQC/SPC Techniques:** Control Charts for Variables and Attributes, Acceptance sampling, Process capability studies, Six Sigma Approaches, Seven tools of SQC **Quality Function Deployment (QFD):** Building a House of Quality, Voice of customers, Applications of QFD.

Quality by Design: Production and Product Development Tools, Taguchi methods, Design of Experiments, Orthogonal Arrays. **Bench Marking:** Evolution, Process of Benchmarking, Understanding Current performance, Types of benchmarking, Issues in bench marking

Tools of TQM: Management tools, Design Review, Pokayoke, Force field analysis, FMEA, FTA, DRM, and 5S Principles. **Strategic Quality Management:** Principles of quality management, Linking with strategic quality management process, TQM implementation, Continual improvement/ Kaizen program, Quality circles, Role of BPR.

Six Sigma: Philosophy of Six Sigma, Six sigma methodology and goals, DMAIC and DPMO, Six sigma goals and responsibility, analytical tools for six-sigma and continuous improvement, service quality measurement: Servqual.

Recommended Books:

1. Besterfield, *Total Quality Management, 3rd ed., Pearson Education-Asia (2002)*
2. Juran & Gryna, *Quality Planning and Analysis, 5th ed., Tata McGraw Hill (2006)*
3. Robert & Flood, *Beyond TQM, John Wiley & Sons Inc. (1993)*

PMB611 OPERATIONS STRATEGY

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): OPERATIONS MANAGEMENT

Operations Strategy: Concept & Competencies: Concept, Framework for operations strategy, Tailoring operations strategy, Competition and competencies, Managing tradeoffs, Competitive cost advantage analysis, operations competitive dimensions, the notion of trade-offs, order winners and qualifiers: the marketing-operations link, Attacking through operations, internet based strategy for operations.

The Resource View: Tailoring Real Assets: Capacity sizing and investment, Capacity expansion, Capacity timing, Capacity location, Global networks and off-shoring, Capacity Flexibility

The Process View: Tailoring Activity Networks: Strategic Sourcing and Supply Mgt, Risk Management, Structured Contracts, Operational Hedging, Mass customization & technology, Concept “cost to serve”, Demand and Revenue management, Technology & incentive mgt for timely service, Improvement and learning, Global standardization/automation, Competing through learning and innovations

Recommended Books:

1. Beckman, S. L. and D. B. Rosenfield, *Operations Strategy: Competing in the 21st Century*, Tat McGraw Hill (2007).
2. Hayes, R., Pisano, G., Upton, D. and S. Wheelwright, *Operations, Strategy, and Technology: Pursuing the competitive edge*, Wiley and Sons (2005).
3. Slack and Lewis, *Operations Strategy*, Prentice Hall of India (2003).
4. Hill and Irwin, *Manufacturing Strategy*, McGraw Hill, (2000).
5. Krajewski, Lee J. and Larry P Ritzman, *Operations Management: Strategy and Analysis*, Pearson Education (2006).

PMB612 MATERIALS MANAGEMENT

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| L | T | P | Cr |
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Prerequisite(s): OPERATIONS MANAGEMENT

Purchasing Process: Purchasing objectives and process, Purchasing cycle, Types of Purchases, Types of purchasing strategies. **Supplier evaluation selection and measurement:** Identification of supplier sources, Methods of supplier selection, Methods of supplier evaluation.

World-wide sourcing, Basic Inventory systems: Functions and Types of Inventories, Measures of Inventory performance, Inventory Systems.

Distribution Inventory management: Multi location Systems, Centralization of Inventories, safety Stocks, Distribution Inventory Systems, Case: Integrated Production, Distribution, and inventory Planning at Libbey-owens-Ford.

The Master Production Schedule: Bill of Material Types, Structuring the Bill of Material, Modular Bills of Material, Disaggregation Techniques, Managing the Master Schedule, Maintenance of the MPS.

The Planning of Material Requirements: MRP and MRP II, Implementation of MRP and MRP II, The Parts Requirements Problem, The Mechanics of MRP, MRP Concepts and Advantages, Lot Sizing, Uncertainty and Change in MRP Systems, Net Change Versus Regenerative MRP Systems, System Nervousness, Firm Planned Orders, and Time Fences.

High-Volume Production Activity Control and Just-in-Time Systems: The Production Environment, Controlling Continuous Production, Sequencing and Line Balancing Methodologies, Relationship to Aggregate Planning, Batch Processing Techniques, Process Industry Scheduling, Just-In-Time (JIT).

Recommended Books:

1. *Narasimhan, Setharama L and Dennis W. McLeavey and Peter J Billington, Production Planning and Inventory Control, Prentice Hall of India. New Delhi (2003)*
2. *Arnold, JR Tony and Stephen Chapman, Introduction to Materials Management, Pearson Education Delhi (2004)*
3. *Monezka, Robert, Robert Trent and Robert Handfield, Purchasing and Supply Chain Management Thompson, South Western (2002)*
4. *Derek L Waller, Operations Management: A Supply Chain Approach, International Thompson Business Press, London (1999)*
5. *Thomas E Vollman, William L Berry and D Clay Whybark, Manufacturing Planning and Control Systems, Irwin Mcgarw Hill. Boston (1997)*

PMB613 LEAN & FLEXIBLE MANUFACTURING SYSTEM

L T P Cr

3 0 0 3.0

Prerequisite(s): OPERATIONS MANAGEMENT

Introduction to Lean: History - Evolution, the Toyota Production System - Bench marketing the performance of manufacturing systems - Benefits of lean **Basics of Lean:** The Lean House - Building Blocks of Standardization, Stability, JIT & Jidoka **The Lean Production Principles:** Work Place Organization, Visual controls - Batch Size Reduction - Pull System - Cellular Manufacturing.

Value Stream Mapping: Value Flow - Pull Value & Perfection - Lean Product & Process Development **The Lean Tools & Techniques:** Quick Change Overs - Mistake Proofing - Line Balancing – Cellular Design - Lean Six Sigma, **The Integrative Interventions:** Kaizen – TPM - 5S - Work Teams - Policy Deployment – Managing Change, **The Lean Implementation:** Role of top management in developing lean culture & managing change - Steps in implementing lean strategy - Lean accounting system.

Lean Practices: Case examples of organizations Practising Lean - Lean assessment study, Case examples of focusing on moving from “batch & queue” to continuous flow & lean operations, Lean Applications for line flow, Lean applications for job-shops.

Applying Lean to Service Organizations: Concept of lean service operations, Lean supply chains, Lean & IT, **Beyond Lean Paradigm:** Agile Manufacturing, Quick Response Manufacturing.

Recommended Books:

1. James P / Jones, Daniel T. Simon & Schuster, *Lean Thinking*, 2nd ed., Free Press (2003)
2. Suri, Rajan, *Quick Response Manufacturing – A Company-wide approach to reducing lead times*, Productivity Press (1998)
3. Don et al., *Value Stream Management Tapping*, Productivity Press (2002)
4. Liker, Jeffery, *Becoming Lean – Inside stories of U S Manufacturers*, Productivity Press (1998)
5. Dr. Jackson, Thomas L., *Implementing a Lean Management System*, Productivity Press (1996)
6. James & Jones, *The machine that changed the world Womack*, Free Press (2007)
7. Schonberger, *World Class Manufacturing*, Free Press (2008)

PMB417 MANAGEMENT OF DATABASE SYSTEMS

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| L | T | P | Cr |
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Prerequisite(s): None

Fundamental of DBMS: Data and Information, Database, Traditional file processing system, Database Approaches Advantages and Disadvantages of DBMS. Architecture of DBMS: Three level of Architecture, Data independence and its type, procedure for Database Access, Role of DBA, Data Manager, File manager, Disk Manager, Types of DBMS: Hierarchical, Network, Relational, Object-oriented and Object relational. ER-Model: Basic concepts, Design Issues, Mapping Constraints, Keys, E-R Diagram, Design of an E-R Database Schema, E-R Schema to Tables.

SQL Fundamental: Data Definition Language, DML statements, Data Control Language, Introduction to Oracle and its feature: Oracle data types, Select Statement, Functions in SQL *PLUS, Grouping Data, joining of tables, types of joins, using set operators, Sub query, creating table, altering table, dropping table, Transaction processing Statements

Normalization for Data Refinement: Normal forms NF1, NF2, NF3 and BCNF, Multi-valued Dependencies and Fourth Normal Form, Join Dependencies and Fifth Normal Form. Transactions, Concurrency Control, Security and Integrity of Data.

Recommended Books:

1. *Silberschatz, A. H. F. Korth and Sudarshan, S., Database System Concepts, Tata McGraw Hill (2002).*
2. *Koch, G. and Loney, K.. Oracle 9i The Complete Reference, Tata McGraw Hill (2002).*
3. *Elmsari, R. and Navathe, S.D., Fundamentals of Database Systems, Addison Wesley (2004).*
4. *Bhatia, Parteek and Singh, Guroinder, Simplified Approach to DBMS, Kalyani Publishers (2007).*

PMB418 INFORMATION SYSTEM ANALYSIS AND DESIGN

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): INFORMATION SYSTEMS MANAGEMENT

Systems Analysis: Developing an Analysis Plan- W5h2, Requirement Analysis, Feasibility study
Process Modeling: Data Flow Diagrams

Systems Development Life Cycle: Planning, Analysis, Design, Implementation.

Systems Development Methodologies: Waterfall model, Prototyping, Incremental, RAD, Spiral Model, JAD, RUP, AUP and test driven development, COCOMO and CMMI

Project Team Structure: Roles and Skills

System Design and Details Design: User Interface Structure Design: User Interface Design Principles and Processes, User Interface Design Components, Data Storage Design: File and Database Formats, Optimization for Data Storage and Data Access. Program Design: Structure Chart, Program Specification

Construction: System Construction Process, Managing Programming, Designing Tests, Developing Documentation, Installation: System Installation Process, Conversion Strategies, Change Management, Post- Implementation Activities.

Overview of Web application Analysis and Design, and Testing

Recommended Books:

1. Alan, Dennis and Barbara, H. Wixom, *Systems Analysis and Design: An Applied Approach*, John Wiley and Sons (2002).
2. Roger, S. Pressman, *Software Engineering: A Practitioner's Approach*, Tata McGraw Hill (2001).
3. Hawryszkiewicz, *Introduction to Systems Analysis & Design*, PHI.
4. Sandra, D. Dewitz, *System Analysis and Design and the Transition to Objects*, Tata McGraw Hill (2002).
5. Jeffrey, L. Whitten and Lonnie D. Bentley, *System and Design Methods*, Irwin McGraw-Hill (2000).

PMB419 IT ENABLED SERVICES

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): None

Global Outsourcing Market on a growth path: Introduction, Evolution of ITES, Key Drivers of ITES, Key benefits of IT-enabled outsourcing.

Software Technologies & Frameworks: Introduction to Relevant Internet & Web Applications for ITES, Voice over IP, IP telephony, groupware, SMTP, SOAP.

Back Office Operations, Design Services, On line Training: Business Process Outsourcing

Service Desk management: Types of Service Desks, benefits and demerits of each type, suitability of a particular type to a specific business context.

Service level agreements: What are the components- how to develop good SLA- penalty clauses – performance clauses – templates of SLAs - Example SLAs for various outsourced services e.g. VoIP, financial reporting

Business Models Driving IT Enabled Service: In-house/Captive centers, Building Success strategies for in-house ITES & 3rd party providers, Third Party Services providers.

The Indian IT Enabled Services Market: The Indian IT-Enabled outsourcing market: Existing size, Market Segmentation.

The Indian Contract Services Market: Contact centers, Market size, Market Processes, Value Proposition, Future of Indian contact center market.

India's Challenge in the IT Enabled Services space HR and Quality Issues in IT Enabled Services: HR in ITES, Employee Value Proposition, Balance of Rewards, Incentive Plan, Training, Quality Focus, Benchmarking quality & Performance.

Challenges Facing the Indian IT Enabled Outsourcing Market: Perspective, Supply & Demand side, Action Plan for India.

Recommended Books:

1. *Nasscom's Handbook on IT Enabled Services Nasscom*
2. *MGI (McKinsey Global) reports 2006 and 2007- excerpts MGI*
3. *ITES Case Studies from wipro/Infosys/ IBM etc.*
4. *Service Level Management and SLA : resources from the Internet*

PMB515 BUSINESS INTELLIGENCE

| L | T | P | Cr |
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Prerequisite(s): None

Business Intelligence Defined: Introduction and need of Business Intelligence, From Data to Information to Knowledge to Intelligence, Basic Components of Business Intelligence Systems.

Data Warehouse: Introduction and need of data warehousing, Data Warehousing (DW) Defined, Evolution of DW, Justifying data warehousing, Difference between DW and databases, DW Architecture and its components, Data Marts, ETL Process Concept of Aggregation, Hierarchy and Granularity, Meta data, Dimensional data modeling, various operations performed on an OLAP cube, Star Schema and Snowflake Schema.

Data Mining: Introduction and need of data mining, Data warehousing to Data Mining, Data Mining defined, Knowledge Discovery in Databases (KDD) process, Data mining vs. query tools, Application of data mining in management decision making, Overview of Web mining and text mining.

Applications of Business Intelligence: Data Mining and Business Intelligence, Overview of e-enabled customer relationship management (CRM) and Business Intelligence, Market Intelligence Enterprise (MIE).

Recommended Books:

1. Ponniah, Paulraj, *Data warehousing Fundamentals*, Wiley Publications (2001).
2. Anahory, Sam and Murray Dennis, *Data Warehousing in the Real World*, Pearson Education (2005).
3. Kimball, Ralph, *The Data Warehouse Toolkit*, Wiley Publications (2004).
4. Berry, Michael and Linoff, *Data Mining Techniques*, Wiley Publications (2004).
5. Adriaans, Pieter and Zantinge, Dolf, *Data Mining*, Thomson Press (2005).

PMB516 IT PROJECT MANAGEMENT

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): None

Introduction: Defining Project & Project Management, Uniqueness of software project management, Framework of software project management, Project Planning and Selection, Various methods of project selection, Project lifecycle, Project Phases,

Core Knowledge Areas: The Project Management Process Groups, Project Integration Management, Project Scope Management, Work Breakdown Structure Project Time Management, Network diagrams, CPM & PERT, Scheduling, Critical Chain Scheduling, Project Cost Management, COCOMO Model, Earned Value Management, Project Quality Management

Facilitating Knowledge Areas: Overview of Project Risk Management, Project Communication Management, Project Human Resource Management and Project procurement management.

Recommended Books:

1. Kathy, Schwalbe, *IT Project Management, Cengage Learning (2007).*
2. Jack, Gido & James P. Clement, *Successful Project Management, Cengage Learning (2007).*
3. Bob, Hughes and Mike Cotterell, *Software Project Management, Tata McGraw Hill, New Delhi (2001).*
4. Jack, Meredith & Samuel J Mantel Jr, *Project Management: A Managerial Approach, John Wiley and Sons (2007).*
5. Nicholas, John M, *Project Management for Business and Technology, Pearson Education (2007).*

PMB517 DECISION SUPPORT SYSTEMS

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| L | T | P | Cr |
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Prerequisite(s): INFORMATION SYSTEMS MANAGEMENT

Introduction: Introduction to different types of Information Systems: TPS, MIS, DSS, Expert Systems, KBS, EIS etc.

Definition of Decision Support Systems (DSS): Need for DSS, History of DSS, ingredients of DSS, DSS Knowledge Base; Types of DSS, DSS hierarchy, the seven DSS types, Categories and Classes of DSS, User interfaces in DSS and DSS users.

Systems Perspective of DSS: Concepts of system and information, DSS as an information system, DSS architecture, DSS Software Tools, Building and Implementation of DSS, Models in DSS.

DSS and Decision Making: types of decisions, decision making process, models of decision making, Simon's model, rational decision making, bounded and unbounded rationality, group decision making, overview of data warehousing and data mining technologies for decision making,.

Recommended Books:

1. Marakas, M. George, *Decision Support Systems in the 21st Century*, Prentice Hall of India, New Delhi (2002).
2. Sarukesi K. and Janakiraman V.S., *Decision Support Systems*, Prentice Hall of India, New Delhi (2006).
3. Mallach, E.G., *Decision Support and Data Warehouse Systems*, Tata McGraw Hill (2000).

PMB614 IT STRATEGY FOR BUSINESS

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| L | T | P | Cr |
| 3 | 0 | 0 | 3.0 |

Prerequisite(s): INFORMATION SYSTEMS MANAGEMENT

Information Systems and Business Strategy: Changing role of Information Systems in Organizations, Implications for the design and understanding of Information Systems, Strategic Information System, Business – level strategy and the value chain model, Firm – level strategy and Information technology, Industry – level strategy and information systems: competitive forces and network economics, using systems for competitive advantage: management issues, Strategic Importance of Information Systems (IS): IS as an integral part of strategic planning, IS to achieve business transformation, Analyzing the strategic impact of IT, IS and globalization.

Information Technology Governance: Organization and planning for IS, IT governance, Short- and long-range technology planning, Data and information management issues, IS economics, Developing an IS strategic plan, Managing IS human resources, IS's rapid pace of change..

IS Operational and Basic Security issues: Outsourcing and outsourcing models, Dealing with IS security threats, Role of auditing in IS security, Ethical issues, IS portfolio and risk management.

Recommended Books:

1. Laudon, K.C. and Laudon, J.P., *Management Information Systems: Managing the Digital Firm*, Prentice Hall (2006).
2. Applegate, L.M, Austin, R.D. and Mcfarlan, F.W., "*Corporate Information Strategy and Management*", TATA McGraw-Hill (2004).

PMB615 DATA AND INFORMATION SECURITY

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| L | T | P | Cr |
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Prerequisite(s): None

Importance of Security: Data, Information, Security, Security triangle, Breach of security, Data security, Information security, System security, Application Security, Network security

Elements of Security: Confidentiality, Integrity, Availability, Authorization, Authenticity, Threat, Vulnerability, Exploit, Attack, Fraud, Computer Crime, Target of evaluation, Types of hacker, hacking, Cracker, Hacktivism,

Steps of hacking : Reconnaissance, Scanning, Gaining Access, Maintaining Access, Cover the track (Foot printing, Enumeration, System hacking), Various modes of Hacking: Remote network, Remote dial-up network, Local network, Stolen equipment, Social engineering, Physical entry, Computer Crimes and Implications.

Various malwares and threats : Trojan and Backdoor, Virus, worms, sniffers, Denials of service, Social Engineering, Session hijacking, Hacking web servers, Web application Vulnerabilities, SQL injection, security breaches in wireless Networks.

Security Measures: Cryptography, Antivirus, Firewall IDS, IPS and honeypots, Overview of cyber-laws

Recommended Books:

1. Mark Stamp San Jose, *Information Security Principles and Practice*, John Wiley and Sons Inc. Publication (2006).
2. Bidgoli, Hossein, *Handbook on Information Security: Threats, Vulnerabilities, Prevention, Detection, and Management, Volume-3*, John Wiley and Sons Inc. Publication (2005).
3. Bacik, Sandy, *Building an Effective Information Security Policy Architecture*, CRC Press (2008).

PMB616 IT INFRASTRUCTURE MANAGEMENT

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite(s): None

Basics of IT Infrastructure: Design Issues, IT System Management Process, IT Service Management Process.

Service Delivery and Service Support Process: Service delivery process, Service Level Management, Financial Management, Service Management, Capacity Management, Availability Management, Service support, Service Delivery and Service Desk.

Managing Data: Databases and Data warehousing, Storage Management : Data Storage, Archive and Retrieve, Disaster Recovery, Space Management, Database and Application Protection, Bare Machine Recovery, Data Retention.

Managing Network: The networked enterprise, business value of networks, network management requirements, network performance indicators, performance monitoring, Network Computing, Discovery, Communication, Messaging and collaboration, Social and Ethical Issues, Managerial Issues.

IT policy: Authenticity, authorization and availability of the IT resources to legitimate users , Audit and control- Computer and Internet Security, Physical Security, Identity Management, Access Management, Intrusion Detection, Security Information Management

Current trends: Concept of Virtual Organization, SOA, Cloud Computing

Recommended Books:

1. Dubey, *IT Strategy and Management*, PHI Learning Pvt. Ltd (2011).
2. Brien, James A. O., *Introduction to Information systems*, Tata McGraw (2005).
3. Schiesser, Rich, *IT System Management*, PHI Pvt. Ltd. (2011).

PMB420 POWER GENERATION MANAGEMENT

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| L | T | P | Cr |
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Prerequisite: ENERGY & ENVIRONMENT MANAGEMENT

Introduction: Various Power Generation Methods- Conventional and Non-conventional.

Power Generation: Thermal Power Plants, Plant Efficiency, Heat conservation Techniques, Hydro Power Projects in India: Micro, Small & Mega Hydro Projects in India.

Nuclear Power Generation: Light Water and Heavy Water Reactors, Breeder Reactor, Types of Nuclear Fuel, Waste Disposal Challenges.

Wind Power Generation: Cost Benefit Analysis, Solar Power Generation.

Recommended Books:

1. Stevenson William D, "Elements of Power system analysis," Tata McGraw Hill, New Delhi (1982).
2. Ravindernath R. and Chanda M, "Power System Protection and Switchgear," Wiley India (1989).

PMB421 RENEWABLE ENERGY SOURCES

L T P Cr

3 0 0 3.0

Prerequisite: ENERGY & ENVIRONMENT MANAGEMENT

Introduction: Energy resources and their utilization, energy resources of India, energy efficient and conservation.

Solar Energy: Sun, earth, radiation spectrums, depletion of solar radiation, terrestrial solar radiation, solar time, and basic sun-earth angles, solar radiation geometry, solar radiation measurements.

Solar Thermal System: Solar collectors, solar water heater, solar passive space heating and cooling system, solar refrigeration and air conditioning system, solar cookers, solar furnaces.

Solar Photovoltaic Systems: Solar cell Fundamentals, solar cell characteristics, efficiency of solar cells, solar cell module, panel and energy construction.

Wind Energy: Introduction, classification of wind turbines, terms used in wind energy, aerodynamic operations of wind turbines, wind characteristics, wind energy programmes in India.

Biomass Energy: Introduction, photosynthesis, bio-fuels, biogas, biomass conservation technologies, biogas plants, energy recovery from urban waste, biomass energy programmes in India.

Geothermal Energy: Introduction, application, geothermal resources, geothermal power generation, geothermal energy in India.

Ocean Energy: Introduction, tidal energy, wave energy, ocean thermal energy, tidal power plants, tidal power and development in India.

Emerging Technologies: Fuel cell, hydrogen energy, small hydro resources.

Recommended Books:

1. Khan B.H., "Non-Conventional Energy Resources", Tata McGraw Hill Published Company, New-Delhi, 2008.
2. Kothari D.P., Singla K.C and ranjan R. "Renewable Energy Sources and Engg. Techologies", Prentice Hill of India Pvt. Ltd., New Delhi, 2008.

PMB422 ENVIRONMENT IMPACT ASSESSMENT

L T P Cr

3 0 0 3.0

Prerequisite: ENERGY & ENVIRONMENT MANAGEMENT

Air Pollution: The Earth's Atmosphere, Thermal Inversions, Impact on Atmosphere of: Carbon Monoxide, the Oxides of Nitrogen, Hydrocarbon Emissions, photochemical Smog and Sulphur Dioxide, Particulates as Pollutants, Acid Rain.

Global Effects: Ozone depletion in the stratosphere, Global Warming, Green house Effect, World Climate Changes.

Transportation: Power and Energy Requirements, Electric Batteries, Flywheels, Hybrids, Hydrogen & alcohol as fuels, Traffic Safety, Mass Transportation.

Clean Development Mechanism (CDM): Certifies Emission Reforms (CER), Carbon Credits, Working of Carbon Market.

Recommended Books:

1. Ristinen, A. Robert and Kransheer Jack J., *Energy and the Environments*, John Wiley & Sons, New York (2006).
2. Kothari, D.P. Singhal, K.K. and Ranjan, Rakesh, *Renewable Energy Resources and Emerging Technologies*, Prentice Hall India, New Delhi (2008).

PMB518 POWER TRANSMISSION AND DISTRIBUTION MANAGEMENT

| L | T | P | Cr |
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| 3 | 0 | 0 | 3.0 |

Prerequisite: ENERGY & ENVIRONMENT MANAGEMENT

Transmission: National Load Dispatch Centers, Regional and State Load Dispatch Centers, Power Grid Corporation, State Electricity Boards.

Distribution: Power Distribution Networks, Sub-Stations and Distribution lines, Power System Switch Gear.

Loss Reduction: Distribution Losses, Technical Loss Reduction, Commercial Loss Reduction. Power Trading and Availability based tariff: Concept of energy trading on exchanges, CERC regulations on energy trading.

Recommended Books:

3. Stevason William D, "Elements of Power system analysis," Tata McGraw Hill, New Delhi (1982).
4. Ravindernath R. and Chanda M, "Power System Protection and Switchgear," Wiley India (1989).

PMB519 NON-RENEWABLE ENERGY SOURCES

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| L | T | P | Cr |
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Prerequisite: ENERGY & ENVIRONMENT MANAGEMENT

Introduction: World energy scenario, Indian energy scenario, classification of energy, importance of non-conventional energy resources, energy units.

Coal: Formation of coal, coal resources, ranking of coals, classification of coals, and coal combustion for power generation, combined heat and power generation, integrated classification combined cycle power plants, carbon capture and sequestration, environmental impacts.

Oil and Natural Gases: Genesis of oil and natural gases, recovering oil and gas, crude oil resources, natural gas resources, petroleum refining, electricity generation, impact on environment.

Nuclear Power: History of nuclear energy, radioactivity, nuclear reactors, boiling water reactor, uranium resources, environmental and safety aspects of nuclear energy, nuclear fusion as an energy source.

Non-conventional oil and gas resources: Oil shale, tar sands, coal bed methane, methane hydrates.

Energy Conservation: Salient features of energy conservation act, principles of energy conservation, space heating, water heaters, energy conservation in industry and agriculture cogeneration, combined cycle power plants.

Recommended Books:

1. Ristiven Robert and Kraushoar Jack J "Energy and Environment", John Wiley & Sons, New York 2006.
2. Mgo Christian and watouritz joseph B, "Our Energy Future", John Wiley & Sons, New York 2009.
3. Khan BH, "Non-Conventional Energy Resources", Tata McGraw Hill, New Delhi 2008.
4. Kothari D.P., Singla K.C and ranjan R. "Renewable Energy Sources and Engg. Technologies", Prentice Hill of India Pvt. Ltd., New Delhi, 2008.

PMB520 ENERGY AUDIT AND ENERGY EFFICIENT TECHNOLOGIES

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Prerequisite: ENERGY & ENVIRONMENT MANAGEMENT

Introduction: Energy Efficiency, Energy Conservation, Concept of Energy Intensity.

Energy Efficient Technologies: Modern Trends in Boiler Design and Efficiency Improvements, Energy Savings in compressed air systems, Energy Efficient Motors, Trends in transformer Technology, Energy Efficient Lighting.

Energy Audit: First Step to Energy Conservation, Preliminary Energy Audit, Detailed Energy Audit Methodology, Comprehensive Energy Audit, Case Studies.

Recommended Books:

1. *Thuman, Albert and Younger, William J, Handbook of Energy Audits, Fairmont Press, USA (2006).*
2. *Turner, Hart and Kennedy, Guide to Energy Management, Fairmont Press, USA (2008).*
3. *Agarwal, Jai Prakash, Survey of Energy Conservation In India-2006, Labour and Industrial Chronicle, Hyderbad (2006).*

Prerequisite: ENERGY & ENVIRONMENT MANAGEMENT

Energy Security: What is Energy Security, Changing Dimensions, From Exclusive to collective Responsibility.

India's Search For Energy: Issues and Emerging Concerns, Changing Dynamics of Energy Demand, The security challenge, Foreign Energy Policy, Diversification of Sources, Building Strategic Resources, Growing competition.

Oil and Gas Management: Oil and Gas findings, Seismic study, Exploration & Production Activities, Procurement & Distribution channels, Role and functioning of DGCH and its regulations.

Energy Pricing: World's Oil & Gas Reserves, Asian Resources and Demand, Asian Energy Market, Refining Process, Cost Evaluation, Subsidy Effect, Price calculations.

Recommended Books:

1. Pant, Girijish, *India: the Emerging Energy Player*, Pearson Education, New Delhi (2008).
2. Ristinen, Robert A, Kraushaar Jack J, *Energy and the Environment*, John Wiley & Sons, USA (2006).
3. *Indian Oil Scenario*, CBIP Publications, New Delhi.

PMB618 POWER SECTOR REFORMS

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Prerequisite: ENERGY & ENVIRONMENT MANAGEMENT

Laws: Electricity Act 2003, Energy Conservation Act 2008, Bureau of Energy Efficiency.

Policies: National Electricity Policy, Power Sector Policy, National Tariff Policy, Coal Sector Policy, Oil and Gas Sector Policy, Nuclear Power policy, Rural Electrification Policy.

Franchise system: Development and Distribution of Franchise system for urban and rural areas.

Power Sector Reforms: Impact Assortment of Electricity Act 2003 on Indian Power Sector, Reforms in power Sector, Power Trading.

References:

1. *Blue Print for Power Sector-2001, Ministry of Power, GOI.*
2. *www.mop.gov.in*
3. *Websites of BEE*
4. *Ideas-Empowering the Nation. A Report, CII- Publisher, Tata McGraw Hill, July 2002.*

PMB619 ENERGY ECONOMICS AND POLICY ASPECTS

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Prerequisite: ENERGY & ENVIRONMENT MANAGEMENT

Energy Management: Working of Carbon Market and Clean Development Mechanism (CDM) techniques, Environmental impacts of Renewable Energy sources.

Economic Aspects: Economic analysis, cost analysis and comparison Cash Flow Diagram, Payback Period, Benefit cost analysis, Depreciation, Infrastructure Development and Financing in India, The financing of Build-Operate-Transfer Infrastructure Projects.

Policy Aspects: India's private power policy initiative, Private Power Policy in India.

Recommended Books:

1. Tiwari, G.N. and Ghoshal M.K., *Renewable Energy Resources: Basic Principles & Application*, Narosa Publishing House (2004).
2. Tiwari, G.N., *Solar Energy: Fundamentals Design, Modeling & Application*, Narosa Publishing House (2002).
3. *The Build Operate and Transfer (BOT) Approach to Infrastructure Projects in Developing Countries*, (1990).