

MBA- Industrial Engineering

The course will aim at Graduates who will have a broad knowledge of the various modern industrial engineering methods and tools associated with manufacturing systems, operations research, quality engineering, and human factors. They will also have the ability to apply engineering design methods to represent, integrate and solve problems, including the ability to recognize problem context and integrate knowledge and skills appropriate sources. Graduates will have an understanding of the integrated, broad nature of the IE discipline with an appreciation of the depth of the field and an ability to find information, when needed.

Subject Code	Subject	Credits	Subject Code	Subject	Credits
SEMESTER I			SEMESTER III		
MBA-01	Managerial Tasks and Behavioural Dynamics	5	MBA-13	Research Methodology	5
MBA-02	Corporate Communication and Managerial Economics	5	MBA-14	Total Quality Management	5
MBA-03	Legislative Framework of Business	5	MBA-15	International Business Management	5
MBA-04	Accounting and Taxation for Managers	5	IM-01	Production Planning and Control	5
MBA-05	Quantitative Techniques for Managerial Decisions	5	IM-02	Applied Ergonomics	5
MBA-06	Business Development and Entrepreneurship	5	IM-03	Industrial Economics And Management	5
SEMESTER II			SEMESTER IV		
MBA-07	Human Asset Management	5	IM-04	Mechanics of Machines	5
MBA-08	Corporate Finance and Services	5	IM-05	Advanced Operations Research	5
MBA-09	Marketing Planning and Management	5	IM-06	Materials And Stores Management	5
MBA-10	Production Technology and Industrial Engineering	5	IM-07	Quality Assurance and Audit	5
MBA-11	Information Science for Managers	5	IM-08	Safety and Maintenance Management	5
MBA-12	Strategic Management and Corporate Governance	5	MBA-16	Project Work	6
				Viva-Voice	3
				Total Credits	124

SUBJECT CODE: MBA-01**SUBJECT: MANAGERIAL TASKS AND BEHAVIOURAL DYNAMICS**

This course helps to prepare the students to understand the basic application of managerial functions in day to day operations and activities of corporate and business enterprises.

OBJECTIVES:

1. To understand the role and responsibilities of manager
2. To learn the process of management in corporate enterprises.
3. To comprehend the behavior of others and adapt to managerial success.
4. To make the students to equip the necessary changes and developments in an organization.

STRUCTURE OF THE COURSE CONTENT**BLOCK 1 MANAGERIAL FUNCTION AND RESPONSIBILITIES**

- Unit 1: Manager Role, Responsibilities and Tasks
- Unit 2: Managerial Functions and Their Characteristics
- Unit 3: Evolution of Management and Schools of Thought
- Unit 4: Social Responsibilities and Business Ethics & Corporate Governance

BLOCK 2 PLANNING AND ORGANIZING FUNCTION

- Unit 1: Planning Nature, Types and Process
- Unit 2: Decision Making and MBO
- Unit 3: Organizing Principles and Structural Design
- Unit 4: Delegation, Span of Control, Decentralization, Line and Staff Authority

BLOCK 3 DIRECTING, CONTROLLING AND CO ORDINATION

- Unit 1: Directing, Motivating, And Leadership
- Unit 2: Controlling Nature and Techniques
- Unit 3: Co Ordination the Essence of Management
- Unit 4: Contemporary Trends in Management

BLOCK 4 INTRODUCTIONS TO BEHAVIOURAL DYNAMICS

- Unit 1: Evolution, Challenges and Opportunities of Organization Behaviour
- Unit 2: Personality and Behavioural Assessment
- Unit 3: Emotions and Learning
- Unit 4: Perceptions and Stress Management

BLOCK 5 ORGANIZATIONAL BEHAVIOURAL DYNAMICS

- Unit 1: Change Management
- Unit 2: Organizational Climate
- Unit 3: Management of Conflicts
- Unit 4: Organizational Development Interventions

REFERENCE BOOKS:

1. Peter F Druker, Management Tasks and Responsibilities, Truman Talley Books, New York.
2. Stephen P Robbins, Fundamental of Management, Pearson 2003
3. Koontz & Weirich, Essentials of Management, Tata McGraw Hill, New Delhi
4. Stephen P Robbins, Organization Behaviour, Prentice Hall Of India, 6th Edition
5. C B Gupta, Management Principles And Practice, Sultan Chand & Sons, New Delhi
6. L M Prasad, Organization Behaviour, Sultan Chand & Sons, New Delhi
7. Consumer Behaviour- Leon Schiffman, Lesslie Lazar Kanuk Pearson/PHI,8/E
8. Consumer Behaviour- Hawkins, Best, Coney-TMH,9/e,2004
9. Consumer Behaviour in Indian Perspective – Suja Nair – Himalaya Publishers, 2004
10. Consumer Behaviour- Satish k Batra & S H H Kazmi, Excell Books
11. Customer Relationship Management- Peeru Ahamed & Sagadevan Vikas Publishing

SUBJECT CODE: MBA-02**SUBJECT: CORPORATE COMMUNICATION AND MANAGERIAL ECONOMICS**

This course enables the students to develop their communication and analytical abilities in terms of effective presentation and economic uncertainties by applying modern and contemporary tools and techniques for competitive advantage.

OBJECTIVES

1. To adopt the modern application of communication and presentation of ideas
2. To understand the basic principles of effective correspondence and idea generation.
3. To make the decision and evaluation through application of economic tools and techniques.
4. To equip and adapt the changing and challenging environmental threats and opportunities.

STRUCTURE OF THE COURSE CONTENT**BLOCK 1 CONCEPT OF CORPORATE COMMUNICATION**

- Unit 1: Meaning Importance Principles and Objectives Of Communication
- Unit 2: Verbal and Non Verbal Communication
- Unit 3: Speech & Technical and Non Technical Presentation
- Unit 4: Group Discussion, Conference and Interview Techniques

BLOCK 2 APPLICATION OF COMMUNICATION IN BUSINESS

- Unit 1: Business Letters: Concept And Introduction
- Unit 2: Inquiries, Circulars, Quotation, Order, and Acknowledgement
- Unit 3: Complaints, Collection, Memos, Minutes and Resume Preparation
- Unit 4: Banking, Insurance, and Sales Correspondences

BLOCK 3 INTRODUCTIONS TO MANAGERIAL ECONOMICS

- Unit 1: Managerial Economics Role and Responsibilities
- Unit 2: Law of Demand and Elasticity Of Demand
- Unit 3: Utility Analysis and Indifference Curve
- Unit 4: Demand Forecasting and Demand Distinctions

BLOCK 4 PRODUCTIONS, COST AND MARKET STRUCTURE

- Unit 1: Production Functions and Laws of Returns
- Unit 2: Cost Functions and Marginal Cost Theory
- Unit 3: Market Structure and Price Determination
- Unit 4: Pricing Strategies and Techniques

BLOCK 5 ENVIRONMENTAL ASSESSMENTS AND DIAGNOSIS

- Unit 1: Corporate Environment and Assessment
- Unit 2: Indian Economic Environment
- Unit 3: International Trade and Trends
- Unit 4: Money, Banking, Inflation and Business Cycles

REFERENCE BOOKS

1. Rajendrapal, Korlahalli, Essentials of Business Communication, Sultan Chand & Sons, New Delhi,
2. Peterson Lewis, Managerial Economics, Prentice Hall of India, New Delhi, 2002
3. Varshney & K L Maheshwari, Managerial Economics, Sultan Chand & Sons, New Delhi
4. N S Raghunathan & B Santhanam, Business Communication, Margham Publication, Chennai.
5. Business Communication - Asha Kaul (2000), New Delhi, Prentice Hall of India
6. Effective Business Communication - Murphy and Hildebrandt (1991), New York: McGraw Hill
7. Communication in India : Some Observations and Theoretical implications - J.S. Yadava, IIMC
8. Communication Theory: Eastern and Western perspective- Lawrence D.

SUBJECT CODE: MBA-03

SUBJECT: LEGISLATIVE FRAMEWORK OF BUSINESS

This course presents the rules and conduct of business in terms of legislative framework. This study helps the manager to lead the business in a smooth and orderly manner as per the legal prescription by the Indian Government.

OBJECTIVES

1. To understand the nature of laws governing the Indian business.
2. To understand the economic and labour laws pertaining to corporate perspectives.
3. To govern the business as per the legislative requirements.
4. To examine the recent requirements of the government from the business.

STRUCTURE OF THE COURSE CONTENT

BLOCK 1 ELEMENS OF BUSINESS LEGISLATION

- Unit 1: The Contract Act 1872, And Their Special Contracts
- Unit 2: Indian Partnership Act 1932
- Unit 3: Sale of Goods Act 1930
- Unit 4: Negotiable Instruments Act 1881

BLOCK 2 ELEMENS OF ECONOMICS LEGISLATION

- Unit 1: Information Technology Act 2000
- Unit 2: The Consumer Protection Act 1986
- Unit 3: The Environment Protection Act 1986
- Unit 4: Competition Law 2002
- Unit 5: Intellectual Property Tax Laws

BLOCK 3 BANKING AND INSURANCE LAWS

- Unit 1: The Banking Regulation Act 1949
- Unit 2: The Reserve Bank of India Act 1934
- Unit 3: The Insurance Act and IRDA Regulations

BLOCK 4 LABOUR LEGISLATION

- Unit 1: Factories Act 1948 & Workmen Compensation Act 1923
- Unit 2: Employee State Insurance Act 1948 & EPF and Miscellaneous Provisio`n Act 1952
- Unit 3: Industrial Disputes Act 1947 & Trade Union Act 1926
- Unit 4: The Minimum Wages Act 1948 & the Payment of Wages Act 1936
- Unit 5: The Payment Of Bonus Act 1965 & The Payment Of Gratuity Act 1972.

BLOCK 5 CORPORATE LEGISLATION

- Unit 1: The Indian Companies Act 1956
- Unit 2: The Securities Contracts and Regulation Act 1956
- Unit 3: sebi rules

REFERENCE BOOKS

1. N D Kapoor, elements of merchantile law, sultan chand & sons, New Delhi.
2. Essential bare acts
3. Majumdar, G k Kapoor, corporate laws and secretarial practice, taxmann publication, new delhi
4. M tannan, banking law and practice,
5. Business Law – S.S. Gulshan
6. Saravanavel & Sumathi- Business Law for Management – HPH
7. M C Kuchhal -Business Law -Vikas, 4/e, 2005

8. BARE ACTS -
 - Indian Contract Act 1872
 - Negotiable Instruments Act 1881
 - Indian Partnership Act 1932
 - Foreign Exchange Management Act 1999
 - Sale Of Goods Act 1930
 - Consumer Protection Act 1986
 - Information Technology Act 2000
 - Companies Act 1956
 - Environmental Protection Act 1986
 - Right To Information Act

SUBJECT CODE: MBA-04**SUBJECT: ACCOUNTING AND TAXATION FOR MANAGERS**

This course enables the students to acquaint the knowledge of application of accounting and financial process of organization framework. It also enables to assess and evaluate the financial results for future organization.

OBJECTIVES

1. To understand the basic ideology of recording, classifying and summarizing financial records.
2. To assess and diagnose the financial condition and position of business results.
3. To apply the costing and managerial tools and techniques for decision making.
4. To ensure the tax laws governing the business conditioning and regulation.

STRUCTURE OF THE COURSE CONTENT**BLOCK 1 BASIC ACCOUNTING CONCEPTS AND PRINCIPLES**

Unit 1: Accounting Principles and Theory

Unit 2: Indian Accounting Standards

Unit 3: Users of Accounting Information and Accounting Equation

Unit 4: Double Entry Principles – Journal, Subsidiary Books,
Ledger and Trial Balance

BLOCK 2 FINANCIAL STATEMENTS ANALYSIS

Unit 1: Financial Statements – Corporate and Non Corporate Bodies

Unit 2: Financial Statement Analysis and Ratio Analysis

Unit 3: Funds Flow and Cash Flow Analysis

BLOCK 3 COST ACCOUNTING

Unit 1: Elements of Cost and Cost Statement

Unit 2: Marginal Costing and Break Even Analysis

Unit 3: Budgeting and Budgetary Techniques

Unit 4: Standard Costing and Variance Analysis

BLOCK 4 MANAGEMENT ACCOUNTING

Unit 1: Long Term Investment Appraisal

Unit 2: Costing For Decision Making

Unit 3: Process and Service Costing

Unit 4: Responsibility Accounting and Transfer Pricing

BLOCK 5 TAXATION FOR MANAGEMENT

Unit 1: Taxation Principles and System

Unit 2: Direct Taxation: The Income Tax Act 1961 and Wealth Tax Act

Unit 3: Indirect Taxation: Central Excise, Central Customs and Sales Tax Act

Unit 4: service tax

RECOMMENDEND TEXT BOOKS

1. M C Shukla, T S Grewal, S C Gupta, Advanced Accounts, Sultan Chand & Company, New Delhi
2. Saxena & Vashist, Cost and Management Accounting, Sultan Chand & Sons, New Delhi
3. S P Jain and K L Narang Advanced Accountancy, Kalyani Publishers, New Delhi.
4. Vinod K Singhania, Kapil Singhania, Direct Tax Laws, Tax Mann Publications,
5. V S Datey, Indirect Taxation, Taxmann Publications. New Delhi.
6. Cost Accounting - Khan & Jain
7. Management Accounting 3rd Ed. - Khan & Jain
8. Theory & Problems in Management & Cost Accounting - Khan & Jain
9. Cost Accounting - Jawaharlal

SUBJECT CODE: MBA-05

SUBJECT: QUANTITATIVE TECHNIQUES FOR MANAGERIAL DECISIONS

This course presents the various statistical and optimization models for managerial application

OBJECTIVES

1. To understand the fundamentals of the quantitative techniques and tools
2. To learn the optimal allocation of resources by mathematical modeling,
3. To estimate the likelihood of chances and probability application in business.
4. To evaluate the resources availability and utility by resource optimization and allocation techniques.

STRUCTURE OF THE COURSE CONTENT

BLOCK 1 BASIC STATISTICAL ANALYSIS

- Unit 1: Meaning Of Statistics, Data Types and Collection
- Unit 2: Tables, Graphs and Frequency Distribution
- Unit 3: Measures of Central Tendency, Variation and Skewness
- Unit 4: correlation and regression

BLOCK 2 THEORIES OF PROBABILITY AND DECISION MAKING

- Unit 1: Theory of Probability and Probability Distribution
- Unit 2: test of hypothesis – t test, f test and chi square test.
- Unit 3: Statistical Decision Making
- Unit 4: Time Series and Index Numbers

BLOCK 3 RESOURCE OPTIMIZATION TECHNIQUES - I

- Unit 1: Operation Research and Linear Programming – Meaning and Uses
- Unit 2: Graphical Method
- Unit 3: Simplex Method
- Unit 4: dual programming

BLOCK 4 RESOURCE OPTIMIZATION TECHNIQUES - II

- Unit 1: Assignment
- Unit 2: Transportation
- Unit 3: Inventory Models
- Unit 4: Replacement and Sequence Analysis

BLOCK 5 RESOURCE OPTIMIZATION TECHNIQUES - III

- Unit 1: game theory
- Unit 2: queuing theory
- Unit 3: pert and cpm
- Unit 4: simulation

REFERENCE BOOKS

1. Richard L Levin & David S Rubin, Statistics for Management,
2. S P Gupta, Statistical Methods, Sultan Chand & Sons, New Delhi
3. U K Srivatsava, G V Shenoy, S C Sharma, Quantitative Techniques for Managerial Decision, Prentice Hall Of India, 2nd Edition,
4. V K Kapoor, Operation Research, Sultan Chand & Sons, New Delhi.
5. Statistics and Quantitative Techniques - M.G.Dhaygude
6. Operations Research - V.K.Kapoor
7. Operations Research - J.K.Sharma
8. Quantitative Techniques - N.D.Vohra
9. Introduction to Operations Research – Hiller
10. Introduction to Operations Research - Gillett

SUBJECT CODE: MBA-06

SUBJECT: BUSINESS DEVELOPMENT AND ENTREPRENEURSHIP

The purpose of this course is to provide a strong theoretical framework for business innovation, development and growth issues for initiation of new business ideas. It also helps to develop the skills to start a new venture and becomes entrepreneur in future career.

OBJECTIVES:

1. To prepare a groundwork for business creation, development and initiation.
2. To build the necessary caliber and competencies for running and conducting new business.
3. To help the students to prepare desirable and feasible project report for business project.
4. To create new ideas for successful entrepreneurship and launching technical know how in a pragmatic business application.

STRUCTURE OF THE COURSE CONTENT

BLOCK I BUSINESS INNOVATION AND CREATIVITY

Unit 1: Skills and Styles of Innovation and Creativity

Unit 2: Creative Organization

Unit 3: Functional Innovation

Unit 4: Personal Innovation and Self Awareness Plan

BLOCK II ENTREPRENEURSHIP

Unit 1: Role and Functions of Entrepreneurs

Unit 2: Entrepreneurial Competencies and Culture

Unit 3: Entrepreneurial Motivation and Performance

Unit 4: Women and Social Entrepreneurship

BLOCK III BUSINESS IDEAS

Unit 1: Sources of Business Ideas

Unit 2: Business Planning and Measurement of Success

Unit 3: Commencement of Internet Business

Unit 4: Presentation of Feasibility Report

BLOCK IV ENTREPRENEURIAL TRANSITITONS

Unit 1: Entrepreneurial Growth and Management Structure

Unit 2: Legal and Intellectual Property Issues

Unit 3: Venture Capital and Entrepreneurial Finance

Unit 4: Crisis and Symptoms of Business Failures

BLOCK V INSTIUTIONAL FRAMEWORK OF ENTREPRENEUR

Unit 1: Role of Government for Promotion of Entrepreneur

Unit 2: Agencies for Entrepreneurship Development

Unit 3: Turnaround Strategies and Rehabilitation Measures

Unit 4: Global Entrepreneurship

REFERENCE BOOKS:

1. Bellon Whittington, "Competing Through Innovation", Prentice.
2. Peter F Drucker, "Innovation and Entrepreneurship"
3. Vasant Desia, Management of Small Scale Enterprise, Himalaya Publishing House, New Delhi.
4. J C Verma and Gurpal Singh, Small Business and Industry – A Handbook for Entrepreneurs, Sage Publications, New Delhi.
5. Brandt, Steven C., The 10 Commandments for Building a Growth Company, ThirdEdition, Macmillan Business Books, Delhi, 1977
6. Bhide, Amar V., The Origin and Evolution of New Businesses, Oxford University Press, New York, 2000.
7. Desai, Vasant, Small Scale Enterprises Vols. 1-12, Mumbai, Himalaya Publishing House. (Latest edition).
8. Dollinger, Mare J., Entrepreneurship: Strategies and Resources, Illinois, Irwin, 1955.
9. Holt, David H., Entrepreneurship: New Venture Creation, Prentice-Hall of India, New Delhi, latest Edition.

SUBJECT CODE: MBA-07

SUBJECT: HUMAN ASSET MANAGEMENT

This course will help the students to explore, recognize and analyse the multiple paradoxes related to the study and application of human resource as an asset in an organization. This course will help the students to understand the basic nature, functions, activities, operations and complexities of human resource management in the corporate realm.

OBJECTIVES:

1. To introduce conceptual and theoretical foundations of human resource management.
2. To aware the importance of human and recognize as an asset in an organization.
3. To acquire the skills of interaction and execution of managerial duties with the help of human resources.
4. To understand the values and utilities of human resources in an competitive environment.

STRUCTURE OF THE COURSE CONTENT

BLOCK 1: HUMAN RESOURCE – INTRODUCTORY PERCEPTION

Unit 1: Human resource management – concept, scope, objectives, philosophy and trends

Unit 2: Functions organization and environment of human resource management

Unit 3: HRM models, theories, approaches and fish bone diagram approach

BLOCK 2: PROCUREMENT AND ACQUISITION OF HUMAN

RESOURCES

Unit 1: Human Resource Planning, Inventory and Forecasting Techniques

Unit 2: Job Analysis and Employment Security

Unit 3: Recruitment, Selection, Placement, Induction and Socialization

BLOCK 3: DEVELOPMENTS OF HUMAN RESOURCES

Unit 1: Employee Training

Unit 2: Executive Development and Managerial Growth

Unit 3: Career Planning and Management

Unit 4: Promotion, Transfer and Separation

Unit 5: Performance Appraisal and Merit Rating

BLOCK 4: WAGES AND SALARIES ADMINISTRATION

Unit 1: Theory of wages and job evaluation

Unit 2: Pay plans and executive compensation

Unit 3: Performance and financial incentives

Unit 4: Benefits and services and employee commitment

BLOCK 5 : MAINTENANCE OF HUMAN RESOURCES

Unit 1: Discipline Administration, Grievances and Industrial Relations

Unit 2: Collective Bargaining and Trade Unionism

Unit 3: Employee Health, Safety and Security Welfare Measures

Unit 4: Human Resource Audit, Accounting, Report and Information System

Unit 5: Human Resource Empowerment

REFERENCE BOOKS

1. David A Decenzo & Stephen P Robbins, Personnel/Human Resource Management, Prentice Hall of India Ltd. Pearson.
2. N G Nair & Latha Nair, Personnel Management and Industrial Relations, Sultan Chand And Company New Delhi.
3. C B Mamaria and Mamaria, Personnel Management,
4. P C Tripathy, Human Resource Development, Sultan Chand & Sons, New Delhi
5. C B Gupta, Human Resource Management, Sultan Chand & Sons, New Delhi.
6. Chopra, S, and P. Meindl, 2004, *Supply Chain Management ? Strategy, Planning and Operation*, 2nd edition, Pearson Education (ISBN 81-297-0172-3).
7. Sople, V. V. (2004). Logistics Management: Supply Chain Imperatives, New Delhi: Pearson Education.
8. Verma M.M., Materials Management, New Delhi, S. Chand & Sons
9. Raghuram, G. and N. Rangaraj, 2000, *Logistics and Supply Chain Management: Cases and Concepts*, Macmillan, New Delhi

SUBJECT CODE: MBA-08

SUBJECT: CORPORATE FINANCE AND SERVICES

This course ensures to acquaint the students with the broad and contemporary framework of financial decision making in a corporate strategic business unit. This course also imbibes the modern tools and techniques of analytical information of finance.

OBJECTIVES:

1. To familiarize the changing environment of acquisition, allocation and distribution of financial resources.
2. To learn the importance of new tools and techniques of financial evaluation and decision variables.
3. To develop the skills of application of financial theories in the corporate market.
4. To aware the services and infrastructural facilities of financial system and markets.

STRUCTURE OF THE COURSE CONTENTS

BLOCK 1 CORPORATE FINANCE AND VALUATION CONCEPTS

Unit 1: Corporate finance functions, scope, goals, organization and activities
Unit 2: Concepts of valuation and return
Unit 3: Portfolio theory, CAPM and Risk Diversification
Unit 4: Corporate financial policy & strategy and shareholder value creation

BLOCK 2 ACQUISITIONS OF CORPORATE FINANCIAL RESOURCES

Unit 1: Avenues of Short Term Fund Procurement
Unit 2: Avenues of Long Term Fund Procurement
Unit 3: Avenues of International Fund Procurement
Unit 4: Indian and International Financial Environment

BLOCK 3 ALLOCATIONS OF CORPORATE FINANCIAL RESOURCES

Unit 1: Investment Analysis and Capital Budgeting Process
Unit 2: Cost of Capital and Leverage Analysis
Unit 3: Capital Structure Theories and Debit Analysis
Unit 4: Dividend Policy and Theories

BLOCK 4 CORPORATE FINANCIAL SYSTEMS

Unit 1: Banking System in India
Unit 2: Development banks
Unit 3: Money market and capital market operations and their recent trends

BLOCK 5 CORPORATE FINANCIAL SERVICES

Unit 1: Mutual funds and derivatives
Unit 2: Merchant banking and corporate counseling
Unit 3: Housing, leasing, consumer and export finance
Unit 4: Factoring, venture capital, credit rating and depositories

REFERENCE BOOKS:

1. Van Horne, Financial Management and Policy, Prentice Hall of India Ltd.
2. I M Pandey, Financial Management, Vikas Publishing House, New Delhi
3. S N Maheshwari, Management Accounting and Financial Control, Sultant Chand & Sons, New Delhi
4. S Gurusamy, Financial Services, Vikas Publishing House, New Delhi
5. B Santhanam, Financial Services, Margham Publications, Chennai.
6. Saunders, Anthony, *Financial Markets and Institutions: A Modern Perspective*
7. Assigned Articles (provided in class and on blackboard)
8. The Wall Street Journal
9. Financial Calculator (TI BA II Plus Recommended)

SUBJECT CODE: MBA-09

SUBJECT: MARKETING PLANNING AND MANAGEMENT

This course presents the ideas of understanding market, marketing, marketing planning, organizing and controlling aspects in the current scenario. This study helps the modern marketers to arrange the resources strategically according to changing marketing needs and requirements.

OBJECTIVES:

1. To understand the fundamental concepts and approaches of marketing
2. To learn the buyer behavior and marketing segmentation
3. To familiarize the 4p's in marketing system
4. To learn about the market and marketing analysis.

STRUCTURE OF THE COURSE CONTENTS

BLOCK 1 MARKETING CONCEPTS AND TASKS

Unit 1: Customer value satisfaction and marketing tasks

Unit 2: Digitalization, customization and e marketing

Unit 3: Market and marketing research and information system

Unit 4: Concept, approaches and functions of marketing

BLOCK 2 MARKETING STRATEGIC PLANNING

Unit 1: Marketing Action Plans

Unit 2: Strategic Marketing Process

Unit 3: Marketing Audit and Evaluation System

Unit 4: Marketing Models and Competitor Analysis

BLOCK 3 MARKETING PROGRAMMES

Unit 1: Consumer Behavior

Unit 2: Marketing Segmentation

Unit 3: Services Marketing

Unit 4: Marketing Ethics and Legislation

BLOCK 4 PRODUCT MANAGEMENT

Unit 1: Meaning policy and development of product

Unit 2: Product line strategy

Unit 3: Product identification branding and packaging

Unit 4: Pricing of products

BLOCK 5 MARKETING COMMUNICATION MANAGEMENT

Unit 1: Sales Promotion Tools and Techniques

Unit 2: Advertising

Unit 3: Management of physical distribution

Unit 4: Sales force management

REFERENCE BOOKS

1. Philip Kotler, Marketing Management Analysis, Planning and Control, Prentice Hall.
2. Guiltman J P & Gordon W P , Marketing Management Strategies & Programmes, Mc Graw Hill, New York.
3. Ramasamy & Namakumari, Marketing Management Planning, Control And Implementation, Macmillan India
4. SA Sherleker, Marketing Management, Vikas Publications.
5. S Jayachandran, Marketing Management, Tata Mc Graw Hill, 2003.
6. Border, N.H. and: Advertising Management-Text and Cases, Marshal, W.V Richard D. Irwin Inc. 1967.
7. Howard. J.M. : Consumer Behaviour in Marketing Strategies, Prentice Hall, 1989.
8. Montgomery, D.B.: Management Science in Marketing, & Urban. G.L. Prentice Hall, 197

SUBJECT CODE: MBA-10

SUBJECT: PRODUCTION TECHNOLOGY AND INDUSTRIAL ENGINEERING

This course focuses on basic managerial issues arising in the production and operations of both manufacturing and service industries. The objectives are to familiarize students with the problems and issues confronting production technology managers and to introduce language, conceptual models, and analytical techniques that are broadly applicable in confronting such problems.

OBJECTIVES:

1. To address rapid changes in technology application to production and industrial engineering management
2. To focus on some fundamental concepts and techniques of production system
3. To provide some significant background of pragmatic implementation of technology in managerial decision making.
4. To emphasize the theory of work design, product development, order delivery and customer service through by business process.

STRUCTURE OF THE COURSE CONTENT

BLOCK 1: TECHNOLOGY OF PRODUCTION TECHNIQUES

- Unit 1: Meaning and implication of technology
- Unit 2: Technology forecasting
- Unit 3: Machine tools process technology
- Unit 4: FMS, JIT, MRP –I, MRP-II and advanced techniques

BLOCK 2: PRODUCTION PLANNING

- Unit 1: Integrated Production Planning System
- Unit 2: Procurement Planning and Inventory Policy
- Unit 3: Scheduling and Optimization
- Unit 4: Production Monitoring System

BLOCK 3: PRODUCTION DESIGN AND ECONOMICS

- Unit 1: Facilities Location and Layout
- Unit 2: Capacity and Work System Design
- Unit 3: Management Information System for Production Technology
- Unit 4: Maintenance and Waste Management

BLOCK 4: PRODUCTIVITY

- Unit 1: Measurement of productivity
- Unit 2: Work study and sampling
- Unit 3: Cost reduction and value analysis
- Unit 4: Cost and financial impact of operational activities

BLOCK 5: INDUSTRIAL ENGINEERING

- Unit 1: Quality assurance
- Unit 2: Methods of engineering and ergonomics
- Unit 3: Manufacturing Automation
- Unit 4: Materials Handling
- Unit 5: Stores and Purchase Management

REFERENCE BOOKS

1. Adam & Ebert, Production and Operation Management, Prentice Hall
2. Op Khanna, Industrial Engineering And Management, Dhanbat Rai & Sons, New Delhi
3. T Hill, Production/Operation Management, Prentice Hall, London
4. Berk J and Berk S, Total Quality Management, Implementing Continuous Improvement, Excel Books, New Delhi.

5. Chary S N, Production and Operation Management, Tata Mcgraw Hill, New Delhi.
6. Willie Harruner, Occupational Safety Management and Engineering, latest edition. Prentice-Hall. ISBN 0-13-629437-5.
7. M.S. Sanders, Human Factors in Engineering and Design, 7th Edition. McGraw-Hill, 1993.
8. R.S. Bridger, Introduction to Ergonomic. McGraw-Hill, ISBN 0-07-007741-X.
9. Laudon & Laudon, Management Information Systems: A Comtemporary Perspective, latest edition. MacMillan, 1991.

SUBJECT CODE: MBA-11

SUBJECT: INFORMATION SCIENCE FOR MANAGERS

The purpose of this course is to present the fundamentals of the computer, data processing techniques, and concepts of e mail, e commerce and tele working. It helps the modern manager to process business applications in payroll generation, bill generation, e commerce and e communication or complicated decision making in computerized environment.

OBJECTIVES:

1. To know the development of computer & communication technology and its application in managerial decision making.
2. To learn the concept and need of system development in managerial work
3. To understand the impact of information technology in corporate environment.
4. To assess the changes and requirements of business appraisal in terms of information technology.

STRUCTURE OF THE COURSE CONTENT

BLOCK 1: COMPUTER SYSTEM

Unit 1: Computer and data processing

Unit 2: Computer peripherals and hardware

Unit 3: Operating system an introduction

Unit 4: Selection and analysis of computer system

BLOCK 2 : MANAGEMENT INFORMATION SYSTEM

Unit 1: Structure and Development of MIS

Unit 2: Prerequisites and Installation of MIS

Unit 3: MIS Reports

Unit 4: Computer Based MIS

BLOCK 3: COMPUTER APPLICATIONS IN BUSINESS

Unit 1: electronic data processing system and flow charts

Unit 2: computer application in accounting

Unit 3: computer application in inventory control

Unit 4: computer application in payroll

BLOCK 4: SYSTEM ANALYSES AND DESIGN

Unit 1: System development phases

Unit 2: Master development plan

Unit 3: System documentation

Unit 4: System implementation

BLOCK 5 DATA PROCESSING

Unit 1: Data Representation

Unit 2: Data processing resources

Unit 3: Data processing standards and documentation

Unit 4: Data processing and EDP environment

REFERENCE BOOKS

1. Davis Gordon B & Olson Margrethe H, Management Information System Tata Mc Graw Hill International Edition
2. Mundick Robert G, Ross, Joel E and Claggett, James R, Information Systems for Modern Management, Prentice Hall of India. New Delhi.
3. V K Kapoor, Information Technology and Computer Application, Sultan Chand & Sons, New Delhi.
4. Analysis and Design of Information Systems, Rajaraman, Prentice Hall
5. Decision Support Systems and Intelligent Systems, Turban and Aronson, Pearson Education Asia
6. Management Information Systems, Schulthesis, Tata McGraw Hill
7. Management Information Systems - Sadagopan, Prentice Hall
8. Management Information Systems - Jayant Oke

SUBJECT CODE: MBA-12

SUBJECT: STRATEGIC MANAGEMENT AND CORPORATE GOVERNANCE

This course helps the students to craft a strategy and choose a superior competitive position by analyzing and exploring conceptual frameworks and models to gain practical knowledge and application in management and execution arena.

OBJECTIVES:

1. To identify and choose the best strategy for competitive advantage
2. To explore models and paradigms for strategic insights.
3. To assess the critical conditions and challenging puzzles in business.
4. To incorporate the best governance practice in the world of corporate business.

STRUCTURE OF THE COURSE CONTENT

BLOCK I INTRODUCTION TO STRATEGY

Unit 1: What Is Strategy And Strategic Management?

Unit 2: Strategic Management Process and Models

Unit 3: Role of Top Management and Board Of Directors

Unit 4: Strategic Intent

BLOCK II RESOURCES DYNAMICS

Unit 1: Scanning and Diagnosis of Environment

Unit 2: Strategic Advantage Profile

Unit 3: Corporate and Industry Analysis

Unit 4: Business Level Strategies

BLOCK III STRATEGIC IMPLEMENTATION AND CONTROL

Unit 1: Strategic Choice and Analysis

Unit 2: Strategic Implementation

Unit 3: Strategic Control and Audit

Unit 4: International Strategic Issues

BLOCK IV BUSINESS ETHICS

Unit 1: Concept of Business Ethics

Unit 2: Value Based Organizations

Unit 3: Discriminatory and Prejudicial Employee Practice

Unit 4: Ecological Consciousness

BLOCK V CORPORATE GOVERNANCE

Unit 1: Overview of Corporate Governance

Unit 2: Directorial Competence and Board Effectiveness

Unit 3: Disclosure and Investor Protection

Unit 4: Corporate Reputation, Legitimacy and Crime

REFERENCE BOOKS:

1. Arthur A Thompson A J Strickland John E Gamble Arun K Jain Crafting And
2. Executing Strategy Concepts And Cases Tata Mcgraw- Hill Publishing 2006
3. Azhar Kazmi Business Policy And Strategic Management Tata Mcgraw- Hill Publishing 2002
4. Francis Cherunilam Strategic Management Himalaya Publishing House 1998
5. John A Pearce Richard B Robinson Strategic Management Tata Mcgraw- Hill Publishing 2005
6. M.Jeyarathnam Business Policy And Strategic Management Himalaya Publishing House 2007
7. Bhatia S K, Business Ethics And Managerial Values, Deep And Deep Publication, 2001.
8. Manual G Valasquez, Business Ethics – Concepts and Cases, Pearson Education, 2002.
9. N. Gopalasamy, Corporate Governance, Wheeler Publishing, 1998.

SUBJECT CODE: MBA-13
SUBJECT: RESEARCH METHODOLOGY

This course enables the students to apply the theoretical knowledge in the pragmatic corporate environment to identify the solution to various managerial difficulties and complexities. This course presents the basic concepts and theories of research to choose the optimal decision in managerial problems.

Objectives:

1. To understand the basics of research methods in managerial and corporate areas.
2. To learn the techniques of assessment and evaluation of research design for managerial paradigm.
3. To aware the various methods of data analysis and application in its decision making.
4. To learn the format and presentation of research report

Structure of the course content

BLOCK I RESEARCH AN INTRODUCTION

Unit 1: Meaning and Types Of Research

Unit 2: Research Process

Unit 3: Problem Identification

Unit 4: Research Design

BLOCK II SAMPLING DESIGN

Unit 1: Meaning and Steps in Sampling

Unit 2: Types of Sampling

Unit 3: Data Collection

Unit 4: Data Processing

BLOCK III TESTING OF HYPOTHESIS

Unit 1: Meaning, Sources and Types of Hypothesis

Unit 2: Parametric Test of Hypothesis

Unit 3: Non Parametric Test of Hypothesis

Unit 4: Techniques of Measurement and Scaling

BLOCK IV DATA INTERPRETATION AND REPORT PRESENTATION

Unit 1: Meaning of Interpretation

Unit 2: Report Meaning and Types

Unit 3: Presentation of Report

Unit 4: Mechanics of Writing of Research Report

BLOCK V SOFTWARE APPLICATION OF RESEARCH

Unit 1: SPSS Application for Research Methodology

Unit 2: MS- Excel Application for Research Methodology

REFERENCE BOOKS

1. C R Kothari, Research Methodology,
2. Donald R Cooper, And Pamela S Schindler, Business Research Methods, Tata Mcgraw Hill, New Delhi.
3. Rao K V, Research Methods for Management and Commerce, Sterling Publications.
4. P C Tripathy, Research Methods for Social Sciences, Sultan Chand & Sons, New Delhi.
5. Uma Sekeran, Research Methods for Business, Wiley Publications.
6. Cooper and Schindler - Business Research Methods (Tata Mc Graw Hill, 9th Edition)
7. Saunders - Research Methods for Business students (Pearson Education, 2nd Edition, 2007)
8. Panneer Selvam - Research Methodology (Prentice Hall of India, Edition 2008)
9. Gravetter - Research Method for Behaviourial Sciences (Cengage Learning)

SUBJECT CODE: MBA-14

SUBJECT: TOTAL QUALITY MANAGEMENT

This course provides in depth understanding of problems and issues in total quality management. It also incorporates the managerial reasoning and analyzing in order to derive an appropriate course of action by focusing quality in products and services.

OBJECTIVES:

1. To understand the quality implication in business set up.
2. To ensure the principles and tools used in total quality management.
3. To create an awareness about the quality certification process.

STRUCTURE OF THE COURSE CONTENT

BLOCK I CONCEPT OF QUALITY MANAGEMENT

Unit 1: Concept, Principles and Role of TQM Implementation.

Unit 2: Quality Control Techniques

Unit 3: Cost of Quality

Unit 4: Kaizen and Continuous Improvement

BLOCK II PRINCIPLES OF TQM

Unit 1: Customer Specification and Perception

Unit 2: Employee Involvement and Retention

Unit 3: Supplier Relationship Movement

Unit 4: Service Quality

BLOCK III QUALITY ANALYSES

Unit 1: Introduction to Statistics

Unit 2: Statistical Control Charts

Unit 3: Probability Estimation

Unit 4: Measurement of Reliability and Sampling

Unit 5: Experimental Designs

BLOCK IV QUALITY SYSTEMS

Unit 1: ISO 9000

Unit 2: Six Sigma

Unit 3: Certification Requirements

Unit 4: Standards for Quality

BLOCK V BENCHMARKING AND QUALITY CIRCLE

Unit 4: Introduction to Benchmarking

Unit 2: Quality function Deployment

Unit 3: Quality Circle

Unit 4: Quality Awards

REFERENCE BOOKS:

1. James Evans and William M Lidsay, The Management and Control of Quality, Thomson Learning, 2002
2. Narayana V and N S Sreenivasan, Quality Management-Concepts and Tasks, New Age International, 1996.
3. Shailendra Nigam, Total Quality Management, Excel Books, New Delhi.
4. James R.Evans & William M.Lidsay, The Management and Control of Quality, (5th Edition), South-Western (Thomson Learning), 2002 (ISBN 0-324-06680-5).
5. Feigenbaum.A.V. "Total Quality Management, McGraw-Hill, 1991.
6. Oakland.J.S. "Total Quality Management Butterworth – Hcinemann Ltd., Oxford. 1989.
7. Zeiri. "Total Quality Management for Engineers Wood Head Publishers, 1991.
8. Feigenbaum.A.V. "Total Quality Management, McGraw-Hill, 1991.

SUBJECT CODE: MBA15

SUBJECT: INTERNATIONAL BUSINESS MANAGEMENT

This course is to impart special knowledge of global aspects of business and operations so as to equip the students suitable for entry level managerial positions in the field of international business management.

OBJECTIVES

1. To gain in depth understanding and analytical skills to conduct the business globally.
2. To effectively carrying the international business operations in complex structure.
3. To acquaint with international business environment and its impact on business operation.

STRUCTURE OF THE COURSE CONTENT

BLOCK I INTERNATIONAL BUSINESS ENVIRONMENT

Unit 1: Nature and Scope of International Business Environment

Unit 2: Environmental Analysis

Unit 3: Theories of International Business

Unit 4: India's International Trade: Trends, Directions and Compositions

BLOCK II INTERNATIONAL INSTITUTIONS

Unit 1: WTO and GATT

Unit 2: World Bank and IMF

Unit 3: Regional Economic Integration

BLOCK III MNC AND FOREIGN INVESTMENT

Unit 1: FDI Theories

Unit 2: Nature and Management of MNC

Unit 3: Strategic Analysis of International Merger

Unit 4: Business Process Outsourcing

BLOCK IV INTERNATIONAL TRADE OPERATIONS

Unit 1: Export Documentation and Procedures

Unit 2: Export Financing Methods

Unit 3: Formalities of Claiming Export Incentives

Unit 4: Legal Framework of International Trade

BLOCK V INTERNATIONAL BUSINESS MANAGEMENT

Unit 1: International Marketing

Unit 2: International Logistics

Unit 3: International Business Negotiations

Unit 4: International Business Culture

REFERENCE BOOKS:

1. V K Bhalla, International Business, Anmol Publications, New Delhi.
2. Export Import Policy, Government of India,
3. S C Jain, International Marketing Prentice Hall, New Delhi.
4. Denies John D and Radebaugh Lee H, International Busines Environment and Operations.
5. Francis Cherunilam, International Business Environment, Prentice Hall of India.
6. Alan C Shapiro : Multinational Financial Management, Prentice Hall, New Delhi
7. Ian H Giddy: Global Financial Markets, AITBS Publishers and Distributors, New Delhi
8. C Jeevanandam, Foreign Exchange: Practice, Concepts, Sultan Chand & Sons, New Delhi
9. Vijayabhaskar P and Mahapatra B., Derivatives Simplified, Respose Books, Sage Publications, New Delhi

SUBJECT CODE: IM-01

SUBJECT: PRODUCTION PLANNING AND CONTROL

BLOCK I: PPC AND PRODUCTION SYSTEMS

- Unit 1 : Definition, Functions & Objectives.
- Unit 2 : Organization and Advantages of PPC
- Unit 3 : Life Cycle of Product and Manufacturing Strategy.
- Unit 4 : Manufacturing Systems, Characteristics of Production Systems.

BLOCK II: PROCESS PLANNING AND PRODUCT PLANNING

- Unit 1 : Manual Process Planning Methodology And Techniques, Computer Aided Process Planning Methods.
- Unit 2 : Master Production Schedule (MPS) , Bill Of Materials (BOM).
- Unit 3 : Material Requirement Planning (MRP), Advantages & Problems of MRP.
- Unit 4 : Material Selection Techniques and Value Analysis.

BLOCK III: MATERIAL MANAGEMENT

- Unit 1 : Programmed Material Planning – Inventories, Types, Cost And Management of Inventory Policy.
- Unit 2 : ABC Analysis, Inventory Models, Economic Order Quantity (EOQ).
- Unit 3 : Reorder Point, Lead Time, Problems in EOQ,
- Unit 4 : Simulation Application in Inventory Management.

BLOCK IV: PURCHASING & STORES MANAGEMENT

- Unit 1 : Functions and Organization Of Purchase Department.
- Unit 2 : Make Or Buy Decisions, Purchasing Management.
- Unit 3 : Stores Management & Inspection and Identifying Bad Storage.
- Unit 4 : Classification and Coding of Purchased Items.

BLOCK V: LOADING, SCHEDULING, DISPATCHING AND CONTROL

- Unit 1 : Developing Loading and Scheduling System.
- Unit 2 : Dispatching, Procedure, and Progress Reporting
- Unit 3 : Corrective Action.
- Unit 4 : Recording and Reporting.

REFERENCES BOOKS:

1. Dalela Mansoor Ali S., Industrial Engineering and Management System, Standard Publishers, Nai Sarak, Delhi.
2. Buffa E.S., Modern Production Management, Eastern private limited.
3. Barnes R.M., Work Design and Measurement, Wiley & sons, 1997.
4. Bage T.R. & Sharma S.C., Production Planning and Control, Khanna Publishers.
5. James L. Riggs, Engineering Economics, Mc Graw Hill Book Company, 1982.
6. James L. Pappas and Brigham F., Managerial Economics, Holt. Rinehart and Winston Limited, 1983.
7. Elements of Production Planning & Control –Eilon
8. Production Planning & Control – Jain and Agarwal
9. Operations Management – Buffa.
10. Production System – J.L. Riggs.
- 11.

SUBJECT CODE: IM-02

SUBJECT: APPLIED ERGONOMICS

BLOCK I: INDUSTRIAL DESIGN

Unit 1: Introduction - General Approach to the Man-Machine Relationship.

Unit 2: Workstation Design-Working Position and Posture.

Unit 3: An Approach to Industrial Design.

Unit 4: Elements of Design Structure for Industrial Design in Engineering Applications in Manufacturing Systems.

BLOCK II: DESIGN AND CONTROL

Unit 1: Configurations and Sizes of Various Controls and Displays.

Unit 2: Design of Controls in Automobiles, Machine Tools Etc.

Unit 3: Design of Furniture.

Unit 4: Design of Instruments.

BLOCK III: DESIGN AND DATA

Unit 1: Ergonomics and Product Design;

Unit 2: Ergonomics in Automated Systems;

Unit 3: Anthropomorphic Data and Its Applications in Ergonomic Design;

Unit 4: Limitations Of Anthropomorphic Data - Use Of Computerized Database.

BLOCK IV: APPLICATION OF ERGONOMICS

Unit 1: Application of Ergonomics in Industry for Safety,

Unit 2: Health and Environment Control.

Unit 3: Prevention.

Unit 4: Specific Safety Measures for Manufacturing and Processing Industry.

BLOCK V: SAFETY AND HEALTH

Unit 1: Safety in the Use of Machines, Precaution For Certain Chemical Industry.

Unit 2: Environmental Safety and ISO 14000 Systems.

Unit 3: Occupational Health – Health and Safety Consideration;

Unit 4: Personal Protective Equipment.

REFERENCES BOOKS:

1. Industrial Design for Engineers: Mayall W.H, London, Hiffie books Ltd, 1988
2. Applied Ergonomics, Hand Book: Brien Shakel (Edited) Butterworth Scientific, London 1988.
3. Introduction to Ergonomics – R.C.Bridger, McGrawHill Pub.
4. Human Factor Engineering – Sanders & McCormick, McGrawhill Publications.
5. Colling D.A., Industrial Safety Management and Technology, PHI
6. Della D.E., and Giustina, Safety and Environmental Management, Van Nostrand Reinheld International Thomson Publishing Inc.
7. Goetsch D. L., Occupational Safety and Health for Technologists, Engineers and Managers, PHI
8. Industrial Safety and Polution Control Handbook, National Safety Council and Associate(Data) Publishers Pvt.Ltd.
9. Reese, C.D.,(2001), Accident/Incident Prevention Techniques, N.Y, Taylor & Francis, Inc.
10. Michand, P.A., Accident Prevention and OSHA Compliance, Boca Raton, FL : CRC Press/ Lewis Publisher.

SUBJECT CODE: IM-03

SUBJECT: INDUSTRIAL ECONOMICS AND MANAGEMENT

BLOCK I DEFINITION AND SCOPE OF ENGINEERING ECONOMICS:

- Unit 1: Concept of Revenue and Costs, Break-Even Analysis.
- Unit 2: Law of Demand & Supply,
- Unit 3: Time Value of Money,
- Unit 4: Present and Future worth Methods.

BLOCK II : DECISION MAKING & REPLACEMENT AND MAINTENANCE ANALYSIS:

- Unit 1: Decision Making Process,
- Unit 2: Decision Making Under Risk Certainty, Uncertainty and Conflict.
- Unit 3: Types of Maintenance, Determination of Economic Life Of An Asset.
- Unit 4: Replacement Of Items That Fail Suddenly And That Fail Over A Period Of Time.

BLOCK III : METHODS OF DEPRECIATION & INVENTORY CONTROL:

- Unit 1: Straight Line Method, Sum-Of-The Year's Digest Method, Declining Balance Method, Sinking Fund Method.
- Unit 2: Service Output Method of Depreciation.
- Unit 3: Introduction and Objective Of Inventory Control.
- Unit 4: Purchase Model with Instantaneous Replenishment, Model with Shortages, Price Break Model, ABC Analysis.

BLOCK IV : FORECASTING & MAKE OR BUY DECISION:

- Unit 1: Demand Forecasting By Quantitative and Qualitative Techniques
- Unit 2: Applications of Demand Forecasting.
- Unit 3: Criteria for Make or Buy,
- Unit 4: Approaches for Make Or Buy Decision.

BLOCK V : VALUE ENGINEERING ANALYSIS & LINEAR PROGRAMMING:

- Unit 1: Value Analysis Vs. Value Engineering Function,
- Unit 2: Aims and Value Engineering Procedure, Advantages & Applications.
- Unit 3: Linear Programming As A Tool of Decision Making, Graphical and Simplex Methods.
- Unit 4: Applications in Decision Making.

REFERENCE BOOKS:

1. Panaerselvam, R., (2001), 'Engineering Economics', Prentice Hall of India: New Delhi
2. Smith G.W., (1973), 'Engineering Economics', Iowa State Press: Iowa
3. Grant, E.L., Irevan, W.G. and Leanenworh, R.S., (1976), 'Principles of Engineering Economy'. Ronald Press: New York
4. Lee S.M. Moore and Taylor, (2005), 'Management Science'.
5. Taha, H.A , (2005), 'Operations Research: An Introduction', Prentice-Hall of India: New Delhi
6. Vohra , N.D., (2006), 'Quantitative Techniques in Managerial Decision Making'. Tata McGraw Hill: New Delhi
7. Mehta, P.L., (2006), 'Managerial Economics', Sultan Chand & Sons: New Delhi.
8. Dougherty, Christopher (2007), 'Introduction to Econometrics', Oxford University Press: New Delhi.
9. Dewett, K.K. / Modern Economic Theory/S.Chand & Co.
10. Luthers Fred/ Organizational Behaviour.
11. Prasad L.M./ Principles of Management.
12. A.W. Stonier & D.C. Horgne / A TextBook of Economic Theory/ Oxford Publishing House Pvt. Ltd.

SUBJECT CODE: IM-04
SUBJECT: MECHANICS OF MACHINES

BLOCK I MECHANICS

- Unit 1: Machine Structure
- Unit 2: Slider Crank & Crank Rocker Mechanics
- Unit 2: Applications
- Unit 2: Determination of Velocity & Acceleration

BLOCK II FRICTION

- Unit 1: Friction in Screw and Nut
- Unit 2: Belt & Rope Drives, Ratio of Tensions
- Unit 3: Condition for Maximum Power Transmission
- Unit 4: Open & Crossed Belt Drive

BLOCK III GEARING & CAMS

- Unit 1: Gear Profile & Geometry
- Unit 2: Cams
- Unit 3: Gear Trains
- Unit 4: Knife edged, Flat Faced & Roller Ended Followers with & without Offsets for various types of follower motions

BLOCK IV BALANCING

- Unit 1: Static & Dynamic Balancing
- Unit 2: Primary Balancing & Concepts of Secondary Balancing
- Unit 3: Balancing of Radial Vs Engine
- Unit 4: Direct & Reverse Crank Method

BLOCK V VIBRATION

- Unit 1: Free, Forced & Damped Vibrations of Single Degree of Freedom Systems
Vibration
- Unit 2: Single & Multi Rotor Systems
- Unit 3: Geared & Critical Speed of Shaft

REFERENCE BOOKS:-

1. Rao, J.S and Dukupati, R.V, "Mechanism and Machine Theory", Second Edition, Wiley Eastern Ltd., 1992.
2. Malhotra, D.R and Gupta, H.C., "The Theory of Machines", Satya Prakasam, Tech. India Publications, 1989.
3. Gosh, A. and Mallick, A.K., "Theory of Machines and Mechanisms", Affiliated East West Press, 1989.
4. Shigley, J.E. and Uicker, J.J., "Theory of Machines and Mechanisms", McGraw-Hill, 1980.
5. Burton Paul, "Kinematics and Dynamic of Planer Machinery", Prentice Hall, 1979.
6. Thomas Bevan, "Theory of Machines", CBS Publishers and Distributors, 1984..
7. Ramamurti, V., ' Mechanism and Machine Theory", 2nd Edition, Narosa Publishing House, 2005.
8. Ghosh A and A.K.Mallick, "Theory of Mechanisms and Machines", Affiliated East-West Pvt. Ltd., 1998.

SUBJECT CODE: IM-05

SUBJECT: ADVANCED OPERATIONS RESEARCH

BLOCK I LINEAR PROGRAMMING

- Unit 1: Linear Programming Methods.
- Unit 2: Simplex Method – Big M Method –
- Unit 3: Two Phase Method & Special Cases.
- Unit 4: Goal Programming.

BLOCK II ADVANCED LINEAR PROGRAMMING

- Unit 1: Duality Analysis & Sensitivity Analysis.
- Unit 2: Changes in Right- Hand Side Constants Of Constraints Changes In Objective Function Co-efficient.
- Unit 3: Adding A New Constraints
- Unit 4: Adding A New Variable.

BLOCK III APPLIED LINEAR PROGRAMMING

- Unit 1: Dual Simplex Method- Cutting Plane Algorithm.
- Unit 2: Branch And Bound Technique-Zero-One Implicit Enumeration Algorithm - Applications of Dynamic Programming – Cargo Loading Model
- Unit 3: Work Force Size Model – Equipment Replacement Model.
- Unit 4: Inventory Model.

BLOCK IV RESOURCE PLANNING

- Unit 1: Shortest Path Model.
- Unit 2: Maximal Flow Problem.
- Unit 3: Crashing of Project Network.
- Unit 4: Resource levelling & Resource Allocation Technique.

BLOCK V PROGRAMMING FOR ADVANCED LEARNERS

- Unit 1: Unconstrained Nonlinear Algorithms.
- Unit 2: Constrained Algorithms & Separable Programming.
- Unit 3: Quadratic Programming & Geometric Programming.
- Unit 4: Stochastic Programming.

REFERENCE BOOKS:

1. Handy M. Taha, Operations Research, An Introduction, 6th Prentice Hall of India, New Delhi, 2001.
2. Don. T. Philips, A.Ravindram and J. Soleberg, Operations Research, Principles & Practice, John Wiley & sons, 1992.
3. Panneerselvam ,R, "Operations Research", Prentice – Hall of India, New Delhi, 2002
4. . Taha, H.A.(1982): Operations Research : An Introduction; MacMillan
- 5 Hillier F.S. and Leiberman,G.J.(1962) : Introduction to Operations Research; Holdon Day
6. Kantiswarup;Gupta P.K. and Singh,M.N.(1985) : Operations Research; Sultan Chand
- 7 Philips, D.T.,Ravindran,A. and Solbeg,J.(2000) : Operations Research principles and practice.
- 8 Sharma,S.D.: Operations Research

SUBJECT CODE: IM-06

SUBJECT: MATERIALS AND STORES MANAGEMENT

BLOCK I : MATERIAL MANAGEMENT TECHNIQUES -I

- Unit 1 : Determination of Stockholding Policy. Customer expectations – Internal/External; Supply . Market Conditions; Categories of Risks and their evaluation;
- Unit 2 : Requirements of the business and the need for stock;
- Unit 3 : Economics constraints; methods of avoiding carrying stock;
- Unit 4 : General control methods e.g. ABC analysis. Control of Stock Range Coding, classification . and categorization methods;

BLOCK II : MATERIAL MANAGEMENT TECHNIQUES -II

- Unit 1 : Variety reduction and standardization; Application and approval of new stock items; Control . of slow moving; obsolete and redundant stock;
- Unit 2 : Role and function in determining stock range, Control of Stock Levels Forecasting . techniques in relation to demand and lead times;
- Unit 3 : Independent demand situations and the use of fixed order quantity and periodic review . systems; Techniques for dealing with dependent demand.
- Unit 4 : Materials Requirements Planning (MRP) and Manufacturing Resource Planning (MRPII) . and Distribution Requirements Planning (DRP); Pull systems.

BLOCK III : STORES MANAGEMENT -I

- Unit 1 : The Kanban approach and Just in Time philosophy; Coping with uncertainty in achieving required service levels; Suppliers contribution to controlling stock. Management of Storage Facilities.
- Unit 2 : Identifying types of commodities to be stored and their characteristics with regard to storage and handling needs;
- Unit 3 : Regulations pertaining to control of substances hazardous to health;
- Unit 4 : Analysis of optimum locations for storage/warehouse facilities. Consideration of single level and multi-echelon structures.

BLOCK IV :STORES MANAGEMENT -II

- Unit 1 : Physical Management of Stock Selection and operation of appropriate Storage and Materials Handling Equipment – general outline;
- Unit 2 : Methods of stores layout to optimize the use of space and minimize picking costs;
- Unit 3 : Outsourcing the activity and vendor managed inventory; Maintenance of security and prevention of theft;
- Unit 4 : Storage and disposal of redundant, obsolete and scrap items; Environmental issues.

BLOCK V : STORES MANAGEMENT : APPLICATION & MODEL

- Unit 1 : Management Aspects Health and Safety at work – operational issues: Health and Safety at work – management issues interdependence and teamwork;
- Unit 2 : Relationships with other functions.
- Unit 3 : Relevant Techniques Use of operational research techniques of queuing theory, network analysis, simple simulation techniques and decision trees;
- Unit 4 : Identifying methods to distinguish between stores efficiency and effectiveness; Benchmarking and measurement of performance.

RECOMMENDED BOOKS:

1. Storage and Supply of Materials, by Jessop & Morrison.
2. Purchasing and Stores Management, by Duru C. Innocent, Ken Printing Press, Lagos.
3. Stores Management and Related Operations, by Carter.
4. Effective Warehousing by Burton.
5. Storehouse and Stockyard Management, by Compton.

6. Quantitative Techniques, by Terry Lucey, Letts Educational, 5th Edition.
7. Purchasing & Supply Management, by Dobler & Burt.
8. Purchasing Handbook, Edited by Fearon, Dobler and Killen.
9. Storage and Control of Stock, by A. Morrison.

SUBJECT: IM-07

SUBJECT: QUALITY ASSURANCE AND AUDIT

BLOCK I : QUALITY ASSURANCE – AN INTRODUCTION

- Unit 1 : Concept and Meaning of Quality Assurance
- Unit 2 : Quality Assurance Properties for Raw Materials, Finished Products and Packaged Materials
- Unit 3 : Quality Analysis and Stability Methods
- Unit 4 : Quality Engineering

BLOCK II : QUALITY INSPECTIONS

- Unit 1 : Inspection Planning
- Unit 2 : Product Acceptance Inspection
- Unit 3 : Inspection Errors
- Unit 4 : Inspection Manual

BLOCK III : QUALITY TESTING

- Unit 1 : Concept, Issues and Techniques of Quality Testing
- Unit 2 : Quality Test Activities and Usage Testing
- Unit 3 : Adaptation, Specialization and Integration
- Unit 4 : Verification and Failure Analysis

BLOCK IV : QUALITY SYSTEMS AND AUDIT

- Unit 1 : Quality System Elements, Documentation and Standards
- Unit 2 : Quality Audit Concepts, Types and Procedures
- Unit 3 : Quality Auditor Roles and Responsibilities
- Unit 4 : Quality Ethics

BLOCK V : COMPUTERISED QUALITY CONTROL AND TRAINING

- Unit 1 : Computer Aided Quality Control
- Unit 2 : Calibration Control
- Unit 3 : Robust Design
- Unit 4 : Quality Training

REFERENCES BOOKS:

1. Arter, Dennis R., Quality Audits for Improved Performance, 3rd ed., Milwaukee, WI:ASQ Quality Press, 2003.
2. ASQ Quality Costs Committee, Jack Campanella, 3rd ed., Principles of Quality Costs: Principles,Implementation, and Use, 3rd ed.
3. Dovich, Robert A., Quality Engineering Statistics. Milwaukee, WI: ASQC Quality Press, 1992.
4. Gryna, Frank, Quality Planning and Analysis: From Product Development through Use, 4th ed., New York: McGraw-Hill Publishing Co., 2001.
5. Scholtes, Peter R., The Team Handbook, 3rd ed., Oreil Inc., 2003.
6. D C Montgomery, John Wiley, Introduction to Statistical Quality Engineering, 5th Edition. 2005.
7. Frank M Gryna, Richard C H, Chua and Joseph A Defec, Juran’s Quality Planning and Analysis for Enterprise Quallity, 5th Edition, Mc Graw Hill, 2007.
8. Quality Control - Dale H Besterfield – Pearson Education
9. Total Quality Management – Sundarrajan
10. . Quality Control & Total Quality Management – Jain
11. . The essence of Total Quality Management – Hunsen & Ghare
12. Managing for Total Quality – Logothetic
13. Quality Problem Solving – Smith
14. ISO 9000 – Kairon
15. Manuals of various standards.

SUBJECT CODE: IM-08

SUBJECT: SAFETY AND MAINTENANCE MANAGEMENT

BLOCK I- PROCESS SAFETY

- Unit I: Need of Process Safety
- Unit 2: Phases of Typical Major Capital Project
- Unit 3: Appropriation Requesting Procedure
- Unit 4: Plot Plan
- Unit 5: Management Procedure and Control

BLOCK II- ENHANCEMENT OF SAFETY KNOWLEDGE

- Unit 1: Safety Knowledge Process
- Unit 2: Benefits from Historical Information
- Unit 3: Method of Safety Education
- Unit 4: Safety Oriented Research
- Unit 5: Non-Proprietary Information

BLOCK III – MAINTENANCE SYSTEMS

- Unit 1 : Types Of Maintenance
- Unit 2: Planned and Unplanned Maintenance
- Unit 3: Break Down Maintenance
- Unit 4: Corrective Maintenance
- Unit 5: Routine Maintenance

BLOCK IV- PLANNING & PREVENTIVE

- Unit 1: Maintenance Planning And Scheduling
- Unit 2: Establishing Plan
- Unit 3: Items to be Maintained
- Unit 4: Preventive Maintenance
- Unit 5: Condition Based Maintenance Systems

BLOCK V – SAFETY PRECAUTION

- Unit I- Characteristic of Item To Be Maintained
- Unit 2: Classification
- Unit 3: Maintenance Procedure
- Unit 4: Guidelines for Matching Procedures to Item
- Unit 5: Universal Maintenance Procedure

RECOMMENDED BOOKS:

1. Maintenance Planning And Control – Anthony Kelly – East West Press Pvt. Ltd
2. Maintenance Engineering & Management – R.C.Mishra & K.Pathak, PHI, 2005. Industrial
3. Maintenance Management – Sushil Kumar Srivatsava, S.Chand & Company, 2005
4. Gopalakrishnan, P. Banerji, A.K., “Maintenance and Spare Parts Management”, Prentice Hall of India, 2004
5. Kelly and M.J. Harris "Management of Industrial Maintenance", Butterworth and Company Limited.
6. AKS Jardine "Maintenance, Replacement and Reliability", Pitman Publishing.