15AHS07-MANAGEMENT SCIENCE

(Common for CE and EEE)

L T P C 3 1 0 3

Course Objectives:

- To analyze the characteristics and contributions of enterprising people
- To assess their own entrepreneurial and enterprising potential To develop an understanding of the general role of Small Business Enterprises
- To develop skills to start, run and manage SMEs
- Understand the role of entrepreneurship in economic development.
- *Identify the general characteristics of entrepreneurs.*
- Know the differences between entrepreneurial and managerial type jobs.
- Understand the significance and sources of capital. Participate in the preparation of a complete business plan.
- Have an understanding of individual personalities and interpersonal skills needed for effective communications in a diverse business environment.

UNIT I

INTRODUCTION TO MANAGEMENT:

Concepts of Management Nature - importance and Functions of Management, Taylor's Scientific Management Theory, Fayol's Principles of Management, Maslow's Theory of Human Needs, Douglas McGregor's Theory X and Theory Y, Leadership Styles, Social responsibilities of Management.

DESIGNING ORGANIZATIONAL STRUCTURES:

Basic concepts related to Organisation - Departmentation and Decentralization, Types of mechanistic and organic structures of organization (Line organization, Line and staff organization, functional organization, Committee organization, matrix organization, team structure) their merits, demerits and suitability.

UNIT II

OPERATIONS MANAGEMENT:

Principles and Types of Plant Layout-Methods of production (Job, batch and Mass Production), Work Study. Statistical Quality Control: cchart, p chart, (simple Problems) Deming's contribution to quality.

MATERIALS MANAGEMENT: EOQ, ABC Analysis, Purchase Procedure and Stores Management. Inventory — functions. Types, inventory classification techniques.

Marketing: Functions of Marketing, Marketing Mix, and Marketing Strategies based on Product Life Cycle, Channels of distribution.

UNIT III

HUMAN RESOURCES MANAGEMENT (HRM):

Concepts of HRM ,Personnel Management and Industrial Relations (PMIR), Basic functions of HR Manager: Manpower planning, Recruitment, Selection, Training and Development, Placement, Wage and Salary Administration, Promotion, Transfer, Separation, Performance Appraisal, Grievance Handling and Welfare Administration, Job Evaluation, Merit Rating and methods.

UNIT IV

STRATEGIC MANAGEMENT:

Vision, Mission, Goals, Objectives, Policy, Strategy, Programmes, Elements of Corporate Planning Process, Environmental Scanning, Value Chain Analysis, SWÖT Analysis, Steps in Strategy Formulation and Implementation, Generic Strategy alternatives.

PROJECT MANAGEMENT (PERT/CPM):

Network Analysis, Programme Evaluation and Review Technique (PERT), Critical Path Method (CPM), Identifying critical path, Probability of Completing the project within given time, Project Cost Analysis, Project Crashing. (Simple problems).

UNIT V

CONTEMPORARY MANAGEMENT PRACTICES:

Basic concepts of MIS, Materials Requirement Planning (MRP), Just-In-Time (JIT) System, Total Quality Management (TQM), Six sigma concept, Supply Chain Management, Enterprise Resource Planning (ERP), Performance Management, Business Process outsourcing (BPO), Business Process Re-engineering and Bench Marking, Balanced Score Card.

Assignments, case studies and mini project.

CourseOutcomes:

- Equipping engineers for a lifelong career addressing the critical technical and managerial needs of private and public organizations.
- Exploring and developing analytic abilities, making better decisions, developing and executing strategies while also leading people who innovate.
- Cultivating the technical skills as well as the behavioral challenges of running organizations and complex systems.
- Emphasizing quantitative analytic skills and an entrepreneurial spirit
- Have an introductory understanding of global entrepreneurship concepts.
- Understand the concept & process of entrepreneurship- its contribution & role in the growth & development of individual & the nation.

TEXT BOOKS:

- 1. Management Science, Aryasri: TMH, 2004.
- 2. Management , Stoner, Freeman, Gilbert, , 6th Ed, Pearson Education, New Delhi, 2004.

REFERENCES:

- 1. Marketing Mangement ,Kotler Philip & Keller Kevin Lane: 12/e, PHI,2005.
- 2. Essentials of Management , Koontz & Weihrich:, 6/e, TMH, 2005.
- 3. Management—Principles and Guidelines, Thomas N.Duening& John M.Biztantra, 2003.
- 4. Production and Operations Management, KanishkaBedi, , Oxford University Press, 2004.
- 5. Personnel Management , Memoria & S. V. Gauker, , Himalaya, 25/e, 2005
- 6. Modern Management ,Samuel C.Certo:, 9/e, PHI, 2005
- 7. Business Policy and Strategic Management, Lawrence R Jauch, R.Gupta&WilliamF.Frank Bros., 2005.

