

## **17SH4101-MANAGEMENT SCIENCE**

<b>Course Category:</b>	Basic sciences	<b>Credits:</b>	3
<b>Course Type:</b>	Theory	<b>Lecture-Tutorial-Practical:</b>	3-0-0
<b>Pre-requisite:</b>	Require general awareness on database management systems	<b>Sessional Evaluation:</b> <b>External Exam Evaluation:</b> <b>Total Marks:</b>	40 60 100

<b>Course Objectives</b>	Students undergoing this course are expected to :	
	<ul style="list-style-type: none"><li>• Learn the disciplines of management science and manager’s role in business and other decision-making.</li><li>• Gain an overview of the process of developing and using quantitative techniques in decision making and planning.</li><li>• Aware of the ethical dilemmas faced by managers and the social responsibilities of business.</li><li>• Know the significance of strategic management in competitive and dynamic global economy</li></ul>	
<b>Course Outcomes</b>	Upon the successful completion of the course , the students will be able to:	
	CO1	Explain the concepts of management, ethical and social responsibilities.
	CO2	Describe various locations and layouts of plants.
	CO3	Apply work study techniques for increased productivity.
	CO4	Manage human resources efficiently and effectively with best HR practices.
	CO5	Develop marketing strategies based on product, price, place and promotion objectives.
	CO6	Determine activities' times (early start, early finish, late start, late finish, total float, and free float) and schedule the project using the CPM and PERT.
<b>Course Content</b>	<b><u>UNIT – I</u></b>	
	<b>Introduction to Management:</b> Concept of Management — Functions of Management, Evolution of Management Thought: Taylor's Scientific Management Theory, Fayal's Principles of Management- Maslow's theory of Hierarchy of Human Needs- Douglas McGregor's Theory X and Theory Y - Hertzberg Two Factor Theory of Motivation - Leadership Styles.	
	<b><u>UNIT – II</u></b>	
	<b>Design of Organization:</b> Principles of Organization –Organization process-Types of organization: line, line and staff organization, function, committee, matrix, virtual, cellular, team organization. Boundary less organization, inverted pyramid structure, lean and flat organization. Managerial objectives and social responsibilities.	
	<b><u>UNIT-III</u></b>	
	<b>Strategic Management:</b> Corporate planning – Mission, Objectives, programmes,	

	<p>SWOT analysis – Strategy formulation and implementation.</p> <p><b>Marketing Management:</b> Functions of Marketing, Marketing Mix, and Marketing Strategies based on Product Life Cycle, Channels of distribution.</p> <p style="text-align: center;"><b><u>UNIT-IV</u></b></p> <p><b>Human Resources Management-</b> Manpower planning – Personnel management – Basic functions of personnel management, Job Evaluation and Merit Rating – Incentive plans.</p> <p style="text-align: center;"><b><u>UNIT-V</u></b></p> <p><b>Production and Operations management:</b> Plant Location and Plant Layout concepts- methods of production (Job, Batch &amp; Mass)-Production Planning and control. Work study- Basic procedure involved in Method Study -Work Measurement.</p> <p style="text-align: center;"><b><u>UNIT-VI</u></b></p> <p><b>Project Management (PERT/ CPM):</b> 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).</p>
<b>Text Books &amp; Reference Books</b>	<p><b>TEXT BOOKS:</b></p> <ol style="list-style-type: none"> <li>1. Applied management Science and Operations Research”, by Dr. T.P. Singh, Er. Arvind Kumar, UDHpublishers and Distributors Pvt Ltd.</li> <li>2. “Management Science”, by A.R.Aryasri, McGraw Higher Ed, 4th Edition.</li> <li>3. “Industrial Engineering and Management”, by O.P.Kanna, Dhanpat Rai Publications.</li> </ol> <p><b>REFERENCE BOOKS:</b></p> <ol style="list-style-type: none"> <li>1. “Business organizations and management”,by C.B.Gupta</li> <li>2. “Industrial Engineering and Management (Including Production Management)”, byT.R.Banga and S.C.Sharma</li> </ol>
<b>E-Resources:</b>	<ol style="list-style-type: none"> <li>1. <a href="http://nptel.ac.in/courses">http://nptel.ac.in/courses</a></li> <li>2. <a href="http://iete-elan.ac.in">http://iete-elan.ac.in</a></li> <li>3. <a href="http://freevideolectures.com/university/iitm">http://freevideolectures.com/university/iitm</a></li> </ol>