# 19SH3201 - MANAGEMENT SCIENCE

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| **Course Category:** | Basic Science | **Credits:** | 3 |
| **Course Type:** | Theory | **Lecture – Tutorial – Practical:** | 3-0-0 |
| **Prerequisite:** | Nil | **Sessional Evaluation:****Univ. Exam Evaluation:****Total Marks:** | 4060100 |
| **Objectives** | Students undergoing this course are expected to * Understand the disciplines of management science and manager’s role in business and other decision-making.
* Gain an overview of the process of developing and using quantitative techniques in decision making and planning.
* Aware of the ethical dilemmas faced by managers and the social responsibilities of business.
* Know the significance of strategic management in competitive and dynamic global economy
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| **Course Outcomes** | Upon the successful completion of the course, the students will be: |
| CO1 | Able to apply the concepts & principles of management in real life industry. |
| CO2 | Able to design & develop organization chart & structure for an enterprise. |
| CO3 | Able to develop marketing strategies based on product, price, place and promotion objectives. |
| CO4 | Able to manage human resources efficiently and effectively with best HR practices. |
| CO5 | Able to apply PPC techniques and Work-study principles in real life industry. |
| CO6 | Able to develop PERT/CPM Charts for projects of an enterprise and estimate time & cost of project. |
| **Course Content** | UNIT – I **Introduction to Management**: 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. UNIT – II **Design of Organization :** principles of Organization –Organisation process- Types of organisation: 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.UNIT – III **Strategic Management**: Corporate planning – Mission, Objectives, programmers, SWOT analysis – Strategy formulation and implementation.**Marketing Management**: Functions of Marketing, Marketing Mix, and Marketing Strategies based on Product Life Cycle, Channels of distribution.UNIT – IV **Human Resources Management**- Manpower planning – Personnel management – Basic functions of personnel management, Job Evaluation and Merit Rating – Incentive plans.UNIT – V **Production and Operations management**: Plant Location and Plant Layout concepts- methods of production (Job, Batch & Mass)-Production Planning and control. Work study- Basic procedure involved in Method Study -Work Measurement.UNIT – VI**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).  |
| **Text Books and References** | **TEXT BOOK(S):**1. Applied management Science and Operations Research Dr. T.P. Singh, Er. Arvind Kumar
2. Management Science A.R.Aryasri
3. Industrial Engineering and Management O.P.Kanna

**REFERENCE BOOKS:**1. Business organizations and management C.B.Gupta
2. Industrial Engineering and Management (Including Production Management) T.R.Banga,S.C.Sharma
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