

2023-24

# MECHANICAL ENGINEERING

PRINCIPAL OF MANAGEMENT



PREPARED BY  
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# **Techno India NJR Institute of Technology**



## **Course File**

### **5ME4-05: PRINCIPLES OF MANAGEMENT**

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# RAJASTHAN TECHNICAL UNIVERSITY, KOTA

## Syllabus

3<sup>rd</sup> Year - V Semester: B.Tech. : Mechanical Engineering

### SME4-05: PRINCIPLES OF MANAGEMENT

Credit: 2  
2L+0T+0P

Max. Marks: 100(IA:20, ETE:80)  
End Term Exam: 2 Hours

| SN | Contents  | Hours     |
|----|---|-----------|
| 1  | Introduction: Objective, scope and outcome of the course.   | 1         |
| 2  | Basic concepts of management:<br>Definition – Need and Scope – Different schools of management thought – Behavioural, Scientific, Systems, and Contingency  | 2         |
|    | Contribution of Management Thinkers:<br>Kautilya, Taylor, Fayol, Peter Drucker and C.K. Prahlad.  | 4         |
| 3  | Functions of Management:<br>Planning: Essentials of Planning and Managing by Objectives; Strategies, Policies and Planning Premises; Decision making.   | 2         |
|    | Organizing<br>The Nature of organizing, Entrepreneurship, and Reengineering; Organizational Structure, Departmentation; Line/staff authority, empowerment, and decentralization; Effective organizing and organization culture; | 3         |
| 4  | Staffing<br>Human resource Management and Selection; Performance Appraisal and Career Strategy; managing change through Manager and Organization Development.   | 2         |
| 5  | Leading<br>Human Factors and Motivation; Leadership: Committees, Terms, and Group Decision making; Communication.   | 3         |
|    | Controlling<br>The system and process of controlling; Control Techniques and Information Technology; Productivity, Operations Management and Total Quality Management.  | 2         |
| 6  | Management practices of:<br>Dhirubhai Ambani, Narayan Murthy, Premji, Ratan Tata, Steve Jobs, Bill Gates.   | 4         |
|    | Studying organizational structures of any 10 companies and classifying them into different types of organizations which are studied above and justifying why such structures are chosen by those organizations.                 | 2         |
|    | Preparing the leadership profiles of any 5 business leaders and studying their leadership qualities.  | 3         |
|    | <b>TOTAL</b>  | <b>28</b> |

### **Course Overview:**

The objective of this course is to acquaint students with the terms, concepts, and points of view used in management and its historical evolution, ethics, social responsibility and environmental issues. Also provide students with a working knowledge of the skills and functions necessary to be an effective, efficient manager.

### **Course Outcomes:**

| <b>CO. NO.</b> | <b>Cognitive Level</b> | <b>Course Outcome</b>   |
|----------------|------------------------|---|
| 1              | Synthesis              | Explain the role of a manager and how it relates to the organization's mission. |
| 2              | Synthesis              | To combine management, its four basic functions and skills.                     |
| 3              | Synthesis              | Summarize critical management theories and philosophies and how to apply them.  |
| 4              | Synthesis              | Comply the concept of social responsiveness and its benefits.                   |
| 5              | Synthesis              | Comply the part communication plays in the management function.                 |
|                |                        |   |

### **Prerequisites:**

1. Basic common sense.
2. Writing skills.

### Course Outcome Mapping with Program Outcome:

| Principles of Management Year of study: 2021-22 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Course Outcome                                  | PO1  | PO2  | PO3  | PO4  | PO5  | PO6  | PO7  | PO8  | PO9  | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| CO1   | 1    | 0    | 2    | 0    | 0    | 1    | 1    | 2    | 3    | 3    | 2    | 3    | 0    | 1    | 1    |
| CO2   | 0    | 0    | 1    | 0    | 0    | 1    | 1    | 1    | 3    | 2    | 2    | 3    | 0    | 1    | 1    |
| CO3   | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 2    | 2    | 3    | 2    | 3    | 0    | 1    | 1    |
| CO4   | 0    | 0    | 1    | 0    | 0    | 1    | 1    | 2    | 2    | 3    | 3    | 3    | 0    | 1    | 1    |
| CO5   | 0    | 0    | 2    | 0    | 0    | 0    | 1    | 2    | 3    | 3    | 3    | 3    | 1    | 1    | 1    |
| <b>Average</b>                                  | 0.20 | 0.00 | 1.40 | 0.00 | 0.00 | 0.60 | 0.80 | 1.80 | 2.60 | 2.80 | 2.40 | 3.00 | 0.20 | 1.00 | 1.00 |

### Course Coverage Module Wise:

| Lecture No. | Unit | Topic   |
|-------------|------|---|
| 1           | 1    | <b>INTRODUCTION</b>   |
| 2           | 2    | <b>BASIC CONCEPTS OF MANAGEMENT:</b> Students will understand the basic definitions, need and scope of management       |
| 3           | 2    | Students will know the evolutions of different Schools of Management Thought: Behavioural Schools                       |
| 4           | 2    | Students will know the evolutions of different Schools of Management Thought: Scientific , System and Contingency       |
| 5           | 2    | <b>CONTRIBUTION OF MANAGEMENT THINKERS:</b> Students will observe the contributions of Koutilya's Mantra (Chankya Niti) |
| 6           | 2    | <b>CONTRIBUTION OF MANAGEMENT THINKERS:</b> Students will observe the contributions of Taylor's & Fayol's.              |
| 7           | 2    | <b>CONTRIBUTION OF MANAGEMENT THINKERS:</b> Students will observe the contributions of Peter Drucker's & CK Prahlad's.  |
| 8           | 3    | <b>FUNCTIONS OF MANAGEMENT: PLANNING-</b> Students will understand the essentials of planning                           |
| 9           | 3    | Students will able to do Planning & Managing by objectives, strategies  |
| 10          | 3    | Students will form the policies and planning premises, Decision making  |
| 11          | 3    | <b>ORGANIZING:</b> Students will understand the nature of organizing, Entrepreneuring and reengineering                 |
| 12          | 3    | Students will know the organizational Structure, Departmentation: Line/staff authority                                  |
| 13          | 3    | Students will understand empowerment and decentralization, Effective organizing and organizational culture              |

|    |   |  |
|----|---|--|
| 14 | 4 | <b>STAFFING:</b> Students will understand human Resource Management activities   |
| 15 | 4 | Students can visualize the selection performance Appraisal and Career Strategy   |
| 16 | 4 | Students will the impact of management through managing change through Manager & Organizational Development                      |
| 17 | 5 | <b>LEADING:</b> Students will understand the human factors & Motivation theories   |
| 18 | 5 | Students will understand the Leadership, committees, Terms and Group Decision making-Communications                              |
| 19 | 5 | <b>CONTROLLING:</b> Students will know the system and process of controlling: Control Techniques & Information Technology        |
| 20 | 5 | Students will know the productivity, Operations Management and TQM   |
| 21 | 6 | <b>MANAGEMENT PRACTICES OF:</b> Students will adopt best management practices by observing the contributions by Dhirubhai Ambani |
| 22 | 6 | <b>MANAGEMENT PRACTICES OF:</b> Students will adopt best management practices by observing the contributions by Narayan Murti    |
| 23 | 6 | <b>MANAGEMENT PRACTICES OF:</b> Students will adopt best management practices by observing the contributions by Premji           |
| 24 | 6 | <b>MANAGEMENT PRACTICES OF:</b> Students will adopt best management practices by observing the contributions by Ratan Tata       |
| 25 | 6 | <b>MANAGEMENT PRACTICES OF:</b> Students will adopt best management practices by observing the contributions by Steve Jobs       |
| 26 | 6 | <b>MANAGEMENT PRACTICES OF:</b> Students will adopt best management practices by observing the contributions by Bill Gates       |
| 27 | 6 | <b>CASE STUDIES ON ORGANIZATIONAL STRUCTURE</b>  |
| 28 | 6 | Students will study on Leadership Profile of Business Tycons and their leadership skills   |

### Text Books

1. Telsan, M.T. (2016). Industrial And Business Management, (4th Ed.), S. Chand, New Delhi.

### References

2. Koontz, H, & Weihrich, H (2016). Essentials Of Management: An International Perspective (8th Ed.), Tata Mcgraw Hills, New Delhi.
3. Ghuman, K & Aswathapa, K, (2017). Management Concepts and Cases (10th Ed.), Tata Mcgraw Hills, New Delhi.

### **Assessment Methodology:**

1. Students will prepare ppts through case studies.
2. Midterm subjective paper where they have to solve basic questions with numerical and derivations from each unit. (Twice during the semester)
3. Final paper at the end of the semester subjective.

### **Teaching and Learning resources unit-wise:**

#### **Unit-1**

Basic concepts of Management

Video Tutorials:

[https://youtu.be/vOykcERGw9Y?list=PLLy\\_2iUCG87DH0iQSVWZ8iamVl5SaLIXQ](https://youtu.be/vOykcERGw9Y?list=PLLy_2iUCG87DH0iQSVWZ8iamVl5SaLIXQ)

Theory concepts: <https://nptel.ac.in/courses/110/105/110105146/>

## **Unit-2**

Functions of Management: Planning

Video Tutorials:

[https://youtu.be/vOykcERGw9Y?list=PLLy\\_2iUCG87DH0iQSVWZ8iamV15SaLIXQ](https://youtu.be/vOykcERGw9Y?list=PLLy_2iUCG87DH0iQSVWZ8iamV15SaLIXQ)

Theory concepts: <https://nptel.ac.in/courses/110/105/110105146/>



### **Unit-3**

Functions of Management: Organizing

Video Tutorials:

[https://youtu.be/vOykcERGw9Y?list=PLLy\\_2iUCG87DH0iQSVWZ8iamV15SaLIXQ](https://youtu.be/vOykcERGw9Y?list=PLLy_2iUCG87DH0iQSVWZ8iamV15SaLIXQ)

Theory concepts: <https://nptel.ac.in/courses/110/105/110105146/>

## **Unit-4**

Functions of Management: Staffing

Video Tutorials:

[https://youtu.be/vOykcERGw9Y?list=PLLy\\_2iUCG87DH0iQSVWZ8iamV15SaLIXQ](https://youtu.be/vOykcERGw9Y?list=PLLy_2iUCG87DH0iQSVWZ8iamV15SaLIXQ)

Theory concepts: <https://nptel.ac.in/courses/110/105/110105146/>

## Unit-5

Functions of Management: Leading

Video Tutorials:

[https://youtu.be/vOykcERGw9Y?list=PLLy\\_2iUCG87DH0iQSVWZ8iamV15SaLIXQ](https://youtu.be/vOykcERGw9Y?list=PLLy_2iUCG87DH0iQSVWZ8iamV15SaLIXQ)

Theory concepts: <https://nptel.ac.in/courses/110/105/110105146/>

Functions of Management: Controlling

Video Tutorials:

[https://youtu.be/vOykcERGw9Y?list=PLLy\\_2iUCG87DH0iQSVWZ8iamV15SaLIXQ](https://youtu.be/vOykcERGw9Y?list=PLLy_2iUCG87DH0iQSVWZ8iamV15SaLIXQ)

Theory concepts: <https://nptel.ac.in/courses/110/105/110105146/>

## **Unit-6**

Management Practices through Case Studies

Video Tutorials:

[https://youtu.be/vOykcERGw9Y?list=PLLy\\_2iUCG87DH0iQSVWZ8iamV15SaLIXQ](https://youtu.be/vOykcERGw9Y?list=PLLy_2iUCG87DH0iQSVWZ8iamV15SaLIXQ)

Theory concepts: <https://nptel.ac.in/courses/110/105/110105146/>