

PROJECT MANAGEMENT

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|---------------------------------------|---|--------------------------------|-------|----------------------|--------|
| Course Code | 20HS7701G | Year | IV | Semester | I |
| Course Category | <i>Humanities and Social Science Elective</i> | Branch | ME | Course Type | Theory |
| Credits | 3 | L-T-P | 3-0-0 | Prerequisites | Nil |
| Continuous Internal Evaluation | 30 | Semester End Evaluation | 70 | Total Marks | 100 |

Course Outcomes: Upon successful completion of the course, the student will be able to

| | Statement | Skill | BTL | Units |
|------------|---|--------------|------------|--------------|
| CO1 | Understand the concepts of project management. | Understand | L2 | 1,2,3,4,5 |
| CO2 | Explain procedure for analyzing the project risk, market risk and firm risk. | Understand | L2 | 2 |
| CO3 | Apply social-cost benefit analysis on a project. | Apply | L3 | 3 |
| CO4 | Analyze a project by applying various network techniques for planning, scheduling and controlling of different activities of a project. | Analyze | L4 | 4 |
| CO5 | Analyze various aspects to be considered for technical and financial analysis of the Project and the Environmental appraisal | Analyze | L4 | 5 |

**Contribution of Course outcomes towards achievement of Program outcomes
& Strength of correlations (High:3, Medium: 2, Low:1)**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| CO1 | 2 | 1 | | | | | | | 2 | | 3 | 2 | 2 | 1 |
| CO2 | 2 | 1 | | | | | | | 2 | | 3 | 2 | 2 | 1 |
| CO3 | 2 | 1 | | | | | | | 2 | | 3 | 2 | 2 | 1 |
| CO4 | 2 | 1 | | | | | | | 2 | | 3 | 2 | 2 | 1 |
| CO5 | 2 | 1 | | | | | | | 2 | | 3 | 2 | 2 | 1 |

Syllabus

| UNIT | Contents | Mapped CO |
|-------------|---|--------------------|
| I | MEANING, NATURE AND IMPORTANCE OF PROJECT: Introduction, Concept of project and project management, Characteristics of project, Project Family tree, Classification of Project, Project selection process, Project life cycle , Project report, Project appraisal, Tools and techniques for project management, Project manager's roles and responsibilities | CO1 |
| II | ANALYSIS OF PROJECT RISK, MARKET RISK AND FIRM RISK: Introduction, Analysis of project risks- Projects with quantified benefits and not quantifiable benefits, Market risk- Security market risk, Interest rate risk, Purchasing Power Risk, Firm risk- Business risk, financial risk. | CO1 CO2 |
| III | COST-BENEFIT ANALYSIS: Introduction, need for social cost benefit analysis, Procedure of social cost benefit analysis, Main feature of social cost benefit analysis, COST-BENEFIT ANALYSIS APPROACHS: UNIDO approach, Little-Mirrless approach, SCBA in India, Public investment decision making in India, Limitation of SCBA. | CO1 CO3 |

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| IV | <p>NETWORK TECHNIQUES FOR PROJECTMANAGEMENT: Introduction, Network modelling, Probabilistic model-various types of activity times estimation, Programme evaluation review techniques (PERT), probability of completing the project, Deterministic model- critical path method (CPM), critical path calculation, crashing of simple of networks</p> | CO1 CO4 |
| V | <p>TECHNICAL AND FINANCIAL ANALYSIS OF PROJECT: Introduction, Technical Analysis-Materials and inputs, Production, Choice of technology, Product Mix, Plant capacity, Location and site, Structures and civil works, Project charts and layouts, financial analysis -Significance of financial analysis, Utility of financial and accounting statements, ENVIRONMENTAL APPRAISAL OF PROJECTS: Introduction, Types and Environmental Dimensions of a Project, Stresses on Environment, Environmental Impact Assessment Methodologies</p> | CO1 CO5 |

Learning Resource

Text books:

1. Prasanna Chandra, Projects Planning, Implementation and Control, Tata McGraw Hill Publishing Company Limited, New Delhi, 1995.

Reference books

1. Project Management Institute (PMI), A Guide to the Project Management of Knowledge Newton Square, PA, 1996
2. J.R. Meredith and S.J. Mantel. Project Management: A Managerial Approach. John Wiley and Sons, New York, 1995.
3. L.S. Srinath, PERT & CPM Principles & Applications, 3rd edition, East west Press,2001.

e- Resources & other digital material

1. <https://nptel.ac.in/courses/105/106/105106149/>
2. <https://nptel.ac.in/courses/110/104/110104073/>