

**NIRMA UNIVERSITY**  
**Institute of Technology**  
**School of Engineering**  
**Bachelor of Technology - Civil Engineering**  
**Open Electives (all branches except Civil Eng.)**

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<b>Course Code</b>	2CLOE29
<b>Course Title</b>	Project Management

**Course Outcomes:**

At the end of the course, students will be able to

1. explain organizational structure and its implementation
2. develop network and apply various monitoring and controlling techniques
3. appraise accounts and finance of the project.

**Syllabus:**

**Teaching Hours: 45**

**Unit 1: Introduction to Management**

**Hour: 03**

History, concept, need for scientific management, scope, functions, engineer as manager.

**Unit 2: Organizational Structure**

**Hour: 03**

Need, types, principle, functions of various personnel, organization as resource.

**Unit 3: Personnel Management**

**Hour: 04**

Special characteristics, man power planning, recruitment, placement, training and induction, motivation, performance appraisal, industrial relation, aspect of administration, motivation, public relation, welfare measures.

**Unit 4: Material Management**

**Hour: 04**

Objectives, scope, functions, stages of material management, inventory control.

**Unit 5: Project Planning and Control**

**Hour: 06**

Project life cycle, identification, budget planning, appraisal, negotiation, approval, detailed planning, implementation, monitoring and control, evaluation, planning techniques and their merits and demerits.

**Unit 6: Network Analysis**

**Hour: 12**

History, Bar chart, CPM and PERT: development of network, time estimates and computation, analysis of network, time-cost trade off, updating and resource allocation.

**Unit 7: Accounting and Financial Management**

**Hour: 09**

Accounting: Concept, objectives, types, principles. Finance Management: Finance as resource, functions, control, cost analysis. Financial statements: Balance sheet, profit and loss account, fund and cash flow statement. Financial Analysis: Financial ratio, types, significance Methods, factors, purpose, financial analysis, cost-benefit ratio. C-V-P

23

analysis: concept, assumption, fixed and variable cost, breakeven point, margin of safety, utility.

**Unit 8: Project Information System**

**Hour: 04**

Need, components, use of computer, implementation, monitoring, reports, schedule and budget, updating, cost and time control.

**Self-Study:**

The self-study contents will be declared at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

**Suggested Readings:**

1. Nagarajan, *Project Management*, New Age International Publishers
2. Kerzner, H. *Project Management: A System Approach to Planning, Scheduling and Controlling*, John Wiley and Sons
3. Burke and Rory, *Project Management: Planning and Control Techniques*, John Wiley and Sons
4. Chandra, P. *Financial Management: Theory and Practice*, Tata McGraw Hill
5. Gopalakrishnan, P. *Materials Management*, Prentice Hall
6. Aswathappa, K. *Human Resource Management: Text and Cases*, Tata McGraw Hill.

L= Lecture, T= Tutorial, P= Practical, C= Credit

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w.e.f. academic year 2020-21 and onwards