

Gautam Buddha University, Greater Noida

School of Engineering (Mechanical Engineering)

Degree	Course Name	Course Code	Marks:100
M. Tech.	Project Management	MEI 601	SM+MT+ET 25+25+50
Semester	Credits	L-T-P	Exam.
III	3	3-0-0	3 Hours

Unit - I

Introduction: Concept of a project; Types of project; Taxonomy of projects; Project identification and formulation project life cycle phase; Project development; Project identification and selection; Feasibility study. **(07 Hours)**

Unit - II

Project Planning: Work Breakdown structure; Project execution planning; Contract planning; Selection of project organization structure; Project contracts; Types of contracts; Types of payments to contractors. **(08 Hours)**

Unit - III

Project Appraisal & Cost Estimation: Introduction; Technical appraisal; Commercial appraisal; Economic appraisal; Financial appraisal; Management appraisal; Social cost/benefit analysis; Project risk analysis; Cost analysis of the project; Components of capital cost of a project; Modern approach to project performance analysis. **(08 Hours)**

Unit - IV

Project Scheduling: Gantt Charts; Introduction to PERT & CPM; Planning and scheduling networks; Time estimation; Determination of critical path; CPM model; Event slacks & floats; PERT model; Expected time for activities; Expected length of critical path; Calculating the project length and variance; PERT & CPM cost accounting systems; Lowest cost schedule; Crashing of networks; Linear programming formulation of event oriented networks; Updating of networks.

(08 Hours)

Unit – V

Project Monitoring and Control: Line of balanced and pace (performance and cost evaluation) techniques; Project control process; Performance analysis; Internal and external project control; Approaches to project control; Control problems.

(07 Hours)

Unit – VI

Human Aspects of Project Management: Leadership in project management; The role of project manager; Project team; Motivation and group cohesiveness.

(07 Hours)

Recommended Books:

1. Project Management; S. Choudhary; Tata McGraw Hill.
2. Managing Business and Engineering Projects; Nicholas; Prentice Hall.
3. Project Preparation; Appraisal; Budgeting and Implementation; Prasanna Chandra; Tata McGraw Hill.