

Lecture Plan

Project Cost and Contract Management Studio

Number of Credits	15	Subject Category	Studio
Lecture Periods/Week	0	Internal Assessment	250
Practical /Lab/Workshop Periods/Week	15	End Evaluation	250
Total Periods/Week	15	Total Marks	500

Objective:

The intent of the course is to augment the knowledge imparted through lectures by discussion of practical cases to determine practice, critically analyse application of knowledge in professional context, experience simulated application procedure in a limited context. Live case studies are undertaken and various aspects of the course are taken up in the Studios. Emphasis is given to interaction with project technical staff and other stakeholders.

Faculty: Dr. M Kranti Kumar

WEEK	DESCRIPTION	EXERCISE /OUTCOME
Week –1 & 2	<p>Title of Exercise:</p> <ul style="list-style-type: none">• Plinth Area Estimation (PAR) of Case Study/Cost Index• Detailed Estimate (Deferent groups different items)• Analysis of Rates (Variations ex: changes incorporation- M35 columns, Floor heights, Earth work different depths and conditions) <p>Description of Studio Exercise: Cost management processes; Cost determination, management and control;</p> <ul style="list-style-type: none">• Estimation using PAR• Physical and financial detailing of proposed project	<ul style="list-style-type: none">• PAR, CI and AOR group submission, and individual group discussions• (Case studies shall be Projects of Project Planning and Scheduling)

WEEK	DESCRIPTION	EXERCISE/ OUTCOME
Week –3 & 4	<p>Title of Exercise:</p> <ul style="list-style-type: none"> Resource Estimation, and cost determination (Same items from previous exercise) (Estimation of labour component, material and machinery and its cost component) <p>Description of Studio Exercise: The resources of the project estimated in PP&S shall be utilized for cost estimation in the following stages;</p> <ul style="list-style-type: none"> The project cost shall be estimates using current market trends of labour rates. Groups shall do analysis of case studies to determine the labour typologies employed at sites and their wage rates prevalent. Groups shall continue with case study analysis to determine the mechanization used in construction and revised their resource schedules as per current resource mobilization on site. The cost estimation shall also be revised, and comparison shall be demonstrated between PP&S resource loaded schedule and mechanization-based schedule. 	<p>Class Presentation and document group submission</p> <p>(Case studies shall be Projects of Project Planning and Scheduling)</p>
Week –5	<p>Introduction to Studio</p> <p>Title of Exercise: Emerging Building Materials Specification (Individual Exercise) 12-weeks</p> <p>Description Of Studio Exercise: Individual assignment- each student shall be assigned one emerging building material and have to develop specifications based on standard template (Material and Workmanship).</p>	<p>Specification Report</p>
Week –6 & 7	<p>Title of Exercise:</p> <ul style="list-style-type: none"> Cost Benefit Analysis of Respective Projects (Understanding and numerical determination of cost involved and its tangible/ intangible benefits of given Project) <p>Description of Studio Exercise:</p> <ul style="list-style-type: none"> Review of Project feasibility (Understating the process of selection of most optimal alternative for a given project/ building) 	<p>Class Presentation and document group submission</p>

Week –8 & 9	<p>Title of Exercise:</p> <ul style="list-style-type: none"> Specifications of Items of Works <p>Description of Studio Exercise:</p> <ul style="list-style-type: none"> Preparation of Specifications of different Item of Works (understating of detailed specifications of material, machinery and workmanship of a given item of work) 	Class Presentation and document group submission
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WEEK	DESCRIPTION	EXERCISE/ OUTCOME
Week – 10,11&12	<p>Title of Exercise:</p> <ul style="list-style-type: none"> Contract Management <p>Description of Studio Exercise:</p> <ul style="list-style-type: none"> Comparative Analysis of different types of Contracts (CPWD, MES, FIDIC, NEC, JCT etc.) GCC of CPWD, MES, FIDIC, NEC and JCT. Selected Clause (Group-1) 	Class Presentation and document group submission
Week – 13 & 14	<p>Title of Exercise:</p> <ul style="list-style-type: none"> Value engineering in projects <p>Description of Studio Exercise:</p> <ul style="list-style-type: none"> Analysis of Function; Life Cycle Costing techniques; Architectural Planning, Selection of Materials (green) for finishes, Selections of MEP System out of various alternatives; Cost Benefit Analysis Of tangible & intangible benefits of alternative selections. 	Class Presentation and document group submission
Week – 15 & 16	<p>Title of Exercise:</p> <ul style="list-style-type: none"> Alternate Dispute Resolution <p>Description of Studio Exercise:</p> <ul style="list-style-type: none"> Study of Dispute Resolution Techniques and presentation of Arbitration cases 	Class Presentation and document group submission

Submission Schedule			
Sl. No.	Date	Description	Marks
01	04/02/2024	PAR, CI and AOR group submission	Class Review 15 Marks (PPT)
01a	04/02/2024	Material Finalization to develop Specification	Marks 15
02	18/02/2024	Resource Estimation, and cost determination	Class Review 15 Marks (PPT)

03	04/03/2024	Cost Benefit Analysis of Respective Projects	Class Review 15 Marks (PPT)
03a	04/03/2024	Specification: Material availability, storage, tolerances, testing.	Marks 15
04	18/03/2024	specifications of Items Of Works	Class Review 15 Marks (PPT)
05	01/04/2024	Comparative Analysis of different types of Contracts	Class Review 15 Marks (PPT)
05a	01/04/2024	Specification: Market availability, Cost, testing.	Marks 15
06	15/04/2024	Value engineering in projects	Class Review 15 Marks (PPT)
07	15/04/2024	Specification Final Presentation	Class Review 15 Marks (PPT)
08	22/04/2024	Alternate Dispute Resolution	Class Review 15 Marks (PPT)
08a	29/04/2024	Report on Specifications	Report 20 Marks
09	10/05/2024	Portfolio Presentation	50 Marks