



GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Engineering

Subject Code: 3721403

Construction & Contract Management

2nd SEMESTER

Type of Course: Core

Prerequisite: NIL

Rationale: students may be able:

1. To understand in detail the process of estimation of a project, procedure related to tenders for their execution, contractual conditions applicable, contract administration for successful execution and dispute resolution.
2. To impart the knowledge of legal issues related to contracts including Contract Act, Arbitration and Conciliation Act.
3. To get exposure of practical cases related to contract conditions and its implications in real projects

Teaching and Examination Scheme

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE	PA(M)	Viva	PA (I)		
3	0	2	4	70	30	30	20	150

Course Contents

Sr.No.	Topics	Hrs.	% Weightage
1	Estimation Project cost estimation, rate analysis, overhead charges - Internationally adopted formulae, detailed estimation, productivity analysis, bidding models and bidding strategies. Owner's and contractor's estimate Specifications Definitions, relationship with drawings, necessity/purpose, advantages/ benefits, organization of specification, drafting/writing the specifications, types of specifications	12	36
2	Tendering Standard methods as followed by government organizations for tendering purposes, methods followed by contractor organizations for bidding Purposes, Bidding models and bidding strategies.	12	42
3	Contracts Outline Contracts, types of construction contracts, Evaluation of contract documents, need for documents, model forms of national and international contracts, roles and functions of participants to the contract, Interpretation of contract in case of inconsistency including case study.	12	22
Total		36	100



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Reference Book(s)

1. Kharb, K.S. "A Guide to Quantity Surveyors, Engineers Architects and Builders(Vol I: Taking off quantities, Abstracting & Billing; Vol II: Analysis of Prices)" Sushila Publications.
2. Keith Collier, "Construction Contracts" Reston Publishing Company, Inc, Reston, Virginia.
3. Patil, B.S., "Building and Engineering Contracts" Mrs. S.B. Patil, Pune.
4. John Murdoch & Will Hughes, "Construction Contracts - Law and Management" Spon Press, Taylor & Francis Group.
5. Gajera, G.T., "Law relating to Building and Engineering Contracts in India" Butterworths.
6. Govt of India, Central Public Works Department, "CPWD Works Manual 2003."
7. Govt of India, Central Public Works Department, "Analysis of Rates for Delhi (Vol 1 & 2)." and "Delhi Schedule of Rates."
8. Govt of India, Central Public Works Department, "CPWD 7/8: General Conditions of Contracts."
9. Govt of India, Military Engineer Services, "IAFW 2249: General Conditions of Contracts."

Course Outcome

Sr. No.	CO statement	Marks % weightage
CO-1	Student should be able to estimate the project cost and prepare the technical specification of each item	34%
CO-2	Student should be able to prepare the tender document.	33%
CO-3	Student should be able to prepare the construction project contract	33%

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	25	20	20	15	10

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above

List of Open Source Software/learning website: www.nptel.ac.in/courses/