



GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Minor/Hons. Program

Level: UG

Branch: Minor/Hons. Forensic Structural Engineering

Subject Code: BE050AU011

Subject Name : Prevention & Resolution of Construction Disputes

w. e. f. Academic Year:	2026-27
Semester:	5
Category of the Course:	Core Courses

Prerequisite:	
Rationale:	Construction disputes can be incredibly costly, time-consuming, and detrimental to all parties involved. The rationale for both the prevention and resolution of construction disputes focuses on minimizing negative impacts, ensuring project efficiency, and maintaining professional relationships. Effective resolution of disputes ensures continuation of project work with minimal interruption.

Course Outcome: Prevention & Resolution of Construction Disputes

After Completion of the Course, Student will able to:

No	Course Outcomes	RBT Level*
01	Identify the procedure of dispute resolution	RM/UN
02	Examine the implications involved in process related to dispute solving	AN
03	Assess the complexity of the dispute case in construction EI	EI

*RM: Remember, UN: Understand, AP: Apply, AN: Analyze, EL: Evaluate, CR: Create

Teaching and Examination Scheme:

Teaching - Learning Scheme (in Hours per Semester)					Total Credits = TH/30	Assessment Pattern and Marks					Total Marks
L	T	P	PBL*	TH		Theory		Tutorial / Practical			
						ESE[E]	PA(M)	PA(I)	PBL(I)	ESE(V)	
45	0	30	45	120	4	70	0	0	30	50	150

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	Contract and Construction Process : Introduction, agreement between parties, drawings and specifications, various types of contracts, contracting and sub-contracting, construction documents; approval, acceptance and certificates, requirements of contract specifications breach of contract, termination of contract	7	10
2.	Evolution of disputes: Causes of differences and disputes such as	12	25



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	contractual and business relations, when making decisions about the choice of method to be used for construction, differing site conditions, contract interpretation, delay in constructions, delays in fund allocation, extra and variations,		
3.	Dispute Resolution: Relevant laws, dispute resolution board, regulations and procedures for the resolution of disputes, alternate dispute resolutions, dispute prevention, dispute due to location of religious structure in constructional activities	7	20
4.	Legal concerns after contract/construction failure: Litigation and dispute resolutions, Process of arbitration, mediation, litigation and adjudication in the construction context	12	25
5.	Solutions to complex construction dispute cases both orally and in writing- appointment of third party expert consultants and witness, Negotiations	7	20
Total		45	100

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
40	30	30	0	0	0

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

References/Suggested Learning Resources:

(a) Books:

1. Construction Contract Claims, Changes and Dispute Resolution by Paul Levin, ASCE.
2. Construction Claims, Prevention and Resolution by Robert A. Rubin, Virginia Fairweather, Sammie D. Guy, John Wiley & Sons.
3. Building and Engineering contracts by B. D. Virmani.
4. Building and Engineering Contracts Law and Practice by P. C. Markanda.
5. Construction Project Management by Kumar Neeraj Jha.
6. The Arbitrations and conciliation Act, 1996.
7. Interpretation of Contract by M. A. Sujan.
8. "Construction Dispute Resolution Handbook" by Peter Campbell and Robert F. Cushman

(b) Open source software and website:

1. <https://nptel.ac.in/courses>



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Suggested Course Practical List:

1. Prepare a presentation describing the major findings from any technical paper that discusses the Dispute prevention and resolution in Construction projects.
2. Preparation of contract documents for different types of contracts
3. Case study- Faulty construction, Construction failures, Construction disputes
4. Dispute prevention measures
5. Case study- litigation, Arbitration, Mediation
6. Types of notices and applicable penal codes

List of Laboratory/Learning Resources Required: NA

Suggested Project List:

List of Suggested Activities for Problem based Learning:

Sl. No.	Name of the activity	No. of hours	Evaluation Criteria
1.	Case study of Solutions to complex construction dispute	Duration of study – 5 hrs Report preparation – 5 hrs Total = 10hrs.	Based on the report – Observations made regarding the Construction dispute
2.	Site visit of a construction site for understanding of Legal concerns after contract/construction failure	Duration of the visit – 6 hrs (3hrs/each building) Report preparation – 4 hrs Total = 10hrs.	Based on the report – Checklist prepared as per the observations and mapped in the actual contract of that site
3.	Self-learning online course	Minimum duration of the course should be 10hrs. Total = 10hrs.	Examination based assessment at the end of course. Based on the certificate produced.
4.	Poster/chart/power point preparation on technical topics	Duration = 6 hrs.	Based on poster/chart Preparation and presentation skills
5.	Technical Video based learning related to the subject	Duration of video = 5hrs. Report preparation = 5hrs. Total = 10hrs.	Report /presentation based on the video learning outcomes.
6.	Technical articles on preparation, floating and execution of a Tender For specific project	4 articles = 20 hrs. (5 hrs/each articles)	Summarize research paper and evaluation critical parameters



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7	Group Discussion on different government Tenders and its bylaws	Duration = Min. 1 hr. per Tender Max. 3 hrs.	Based on performance in group discussion, technical depth, knowledge etc.
8	Quiz, elocution or Debate on technical topics related to Tender of a Civil Engineering project	Working = 12 hrs. Non- working = 8 hrs.	Based on inter department/external evaluation
9.	Industrial exposure for 2-3 days to observe and provide tentative solutions on society/environment/health/sustainability/any other issue	Duration = 15 hrs. for Industrial exposure Problem identification and tentative solution = 10 hrs. Total = 20 hrs.	Based on evaluation of critical problems and solutions
10	Videos on technical terms , procedure for preparation , floating and execution of a specific Tender with all relevant rules and regulation for the same	Duration of video = 5hrs. Report preparation = 5hrs. Total = 10hrs.	Based on quiz/report submitted
11	Real world case studies-based Learning	Duration of data collection/study = 5hrs. Report preparation = 5hrs. Total = 10hrs.	Based on in-depth study, technical depth, data collected, fact finding, etc.
12	Application/Software	Duration = 10 hrs.	Depending on the complexity
13.	Assignment writing. Syllabus based assignment is preferable.	5 assignments of 4hrs. each. Total = 20hrs.	Based on the correctness of Submitted assignment.

Note:

- All the suggested activity should be related to the subject.
- The number of hours is suggestive. Faculty can sub-divide the number of hours based on the activity. However, total number of hours is fixed.
- Rubrics for the evaluation can be prepared by the faculty.
- Subject teacher can add the relevant activities other than those listed above, with the consent of head of the department and DQAC.
- All records pertaining to the evaluation and assessment of self-learning activities must be



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properly maintained and preserved at the institute level. These records should be made available to the university upon request.

- Institutes are encouraged to utilize digital platforms, such as Microsoft Teams, for effective record- keeping and to ensure transparency in the evaluation and assessment of self-learning activities.

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