

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE (CIVIL AND INFRASTRUCTURE ENGINEERING)**  
**CONTRACT ADMINISTRATION AND MANAGEMENT**  
**SUBJECT CODE: 2184005**  
**B.E. 8<sup>th</sup> SEMESTER**

Type of Course: **Department Elective**

Prerequisite: **NIL**

**Course Objectives:**

1. To make students understand various contracts, their suitability and the procurement process involved in construction projects.
2. To make student capable of understanding and reviewing various provisions included in the contract for effective management of the projects
3. To make the student understand various contract management processes involved in construction projects

**Teaching and Examination Scheme**

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		C	Theory Marks		Practical Marks	
			ESE		PA(M)	Viva	PA (I)	
3	2	0	5	70	30	30	20	150

**Course Contents**

Sr.No.	Topics	Hrs.	% Weightage
1	<b>Introduction to Contract:</b> Definition and legal issues in contract, Essential requirement of a contract as per Indian Contract Act 1872, Legal enforceability of contract, Characteristics of a good contract, Breach & termination of contracts, Major stake holders in construction contracts.	4	10
2	<b>Construction Contracts:</b> Type of construction contracts: Lump sum contracts, Fixed price contracts, Percentage rate contracts, Cost plus contracts, Target contracts, Design-Build contracts, Turn-key contracts, BOT contracts.	9	23
3	<b>Tendering:</b> Process of tendering: Tender notice, EOI, RFQ & RFP, Bid security, Prequalification process, Bidding Models and bidding strategy, Tender submission and evaluation, Tender rejection, Security deposits/performance gaurantee & Defect liability, Contract agreement & contract documents	9	23

4	<b>Conditions of Contracts:</b> General conditions & special conditions, Contract conditions for payments, Time delay, Scope changes, Extra claims, Dispute resolution & arbitration, Termination of contracts, subcontracting etc. FIDIC Contracts conditions	10	26
5	<b>Contract Administration:</b> Elements of contract management, Major stake holders in construction contracts, Contract administration; Duties and responsibilities of parties, Stake holder agreements, Contract risk management, Contract maintenance and change control, Management reporting, Dispute resolution mechanisms: Negotiation, Mediation, Arbitration and Litigations, Arbitration and Conciliation Act 1996	7	18
	<b>Total</b>	<b>39</b>	<b>100</b>

### Reference Book(s)

1. Keith Collier, "Construction Contracts" Reston Publishing Company, Inc, Reston, Virginia.
2. Patil, B.S., "Building and Engineering Contracts" Mrs. S.B. Patil, Pune.
3. John Murdoch & Will Hughes, "Construction Contracts - Law and Management" Spon Press, Taylor & Francis Group.
4. Gajera, G.T., "Law relating to Building and Engineering Contracts in India" Butterworths.
5. Govt of India, Central Public Works Department, "CPWD Works Manual 2003."
6. Govt of India, Central Public Works Department, "CPWD 7/8: General Conditions of Contracts."
7. V. K. Raina, Raina's Construction and Contract Management Vol.1 (Second Edition), SPD Publishers, 2009

### Course Outcome

1. Student can demonstrate an ability identify and suggest suitable contracts for a given project scenario
2. To understand tender processing and analyses/assess various contractual provisions in a tender documents and develop estimate and bidding strategy
3. Students will be familiar with stake holder & contract management processes involved in construction projects for its timely implementation

### List of Tutorials

1. Collection of Evaluation of tender notices/ EOI, RFQ & RFP
2. Tender notice preparation
3. Exercise on pre-qualification of contractors
4. Case Study & evaluation of tender documents for:
  - Tendering process

- Security and performance bonds
- Risk assessments of contractual provisions
- Arbitration/dispute resolution

**Suggested Specification table with Marks (Theory):**

<b>Distribution of Theory Marks</b>					
R Level	U Level	A Level	N	E Level	C
<b>10</b>	<b>15</b>	<b>20</b>	<b>20</b>	<b>25</b>	<b>10</b>

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.iitm.ac.in/courses/](http://www.nptel.iitm.ac.in/courses/)

**Active learning Assignments (AL) :** Preparation of power-point slides, which include videos, animations, pictures, graphics for better understanding theory and practical work – The faculty will allocate chapters/ parts of chapters to groups of students so that the entire syllabus to be covered. The Power-point slides should be put up on the web-site of the College/ Institute, along with the names of the students of the group, the name of the faculty, Department and College on the first slide. The best three works should submit to GTU.