

Branch Name:	MECHANICAL ENGINEERING / CIVIL ENGINEERING / ELECTRICAL ENGINEERING
Program Code:	ET101 / ET106 / ET109
Course Title:	Elements of Civil Engineering Practical
Course Code:	2ET10000113P
Pre-requisite Course:	Basic knowledge of mathematics and physics

Course Objectives:

CO-1: The students will learn fundamental basics of Civil Engineering concepts.

Teaching and Examination Scheme:

Credit	Teaching Scheme Hours per week				Evaluation Scheme (Marks)								
					Theory (Marks)				Practical (Marks)				Total (Marks)
	L	T	P	Total	SEE		CCA		SEE		CCA		
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1	-	-	2	2	-	-	-	-	10	25	10	25	50

List of Practical's:

1. Components of building (field visit)
2. Planning of a residential building (plan, elevation & section of simple 1 room)
3. Seminar on green building & smart city
4. Presentation on BRTS / mass transportation system (city bus)
5. Introduction to Theodolite & Total Station

Reference Books:

1. Elements of Civil Engineering Author: Dr. R.K. Jain and Dr. P.P. Lodha. Publisher: McGraw Hill Education, India Pvt. Ltd.
2. Surveying Vol. I Author: Dr. B. C. Punmia, Ashokkumar Jain, Arunkumar. Publisher: Laxmi Publication Delhi.
3. Building Construction Author: Dr. B. C. Punmia, Ashokkumar Jain, Arunkumar Jain. Publisher: Laxmi Pub. Delhi.
4. Building Information Modeling: Global & Indian Perspective Author: Dr. Adv. Harshul Savla, Dr. Chandrahauns Chavan, Ar. Pallavi Patil. Publisher: Notion Press, India.
5. Introduction to Smart Cities Author: Anil Kumar. Publisher: Pearson India.

Course Learning Outcomes (CLO): On completion of this course, the students will be able to:

CLO	Description	Bloom's Taxonomy Level
CLO1	Overview of Civil Engineering field	L-2
CLO2	Idea about surveying and different types of instruments.	L-2
CLO3	Basic idea about building construction and green building,	L-2
CLO4	Get acquainted with BIM and smart cities.	L-2
CLO5	Describe various public transportation systems, water conservation methods	L-2

L1- Remember, L2- Understand, L3- Apply, L4- Analyze, L5- Evaluate, L6- Create
Mapping of CLOs with POs & PSOs

	Program Outcomes (POs)												Program Specific Outcomes (PSOs)		
Course Learning Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CLO1	M	M				M	M							M	
CLO2	M	M				M	M							M	
CLO3	M	M				M	M							M	
CLO4	M	M				M	M							M	
CLO5	M	M				M	M							M	

H: High, M: Medium, L: Low