

Branch Name:	Electrical Engineering
Program Code:	ET403
Course Name:	Basic Civil Engineering
Course Code:	2ET4000205
Pre-requisite Course:	--

Course Objectives:

1. Become competent and engaged engineering professionals.
2. Applying their technical and managerial skills in the planning, design, construction, operation or maintenance of the built environment and global infrastructure.
3. Utilizing their skills to analyze and design systems, specify project methods and materials.
4. Perform cost estimates and analyses, and manage technical activities in support of civil engineering projects.

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture (L)	Tutorial (T)	Practical (P)	Credit	Theory (Marks)		Practical (Marks)		Total (Marks)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
-	-	2	1	-	-	-	50	50

Subject Contents:

Sr. No	Topic	Total Hours	Weightage (%)
1	Civil Engineering Surveying Surveying & leveling (its importance and types), Necessity for leveling, Principles of surveying, Instrument/ tools used for survey, level and Procedure of leveling, Various methods of finding the field survey measurements, Chain and Compass Survey and Preparations of contour sheets/ plan using survey data	04	28
2	Civil Engineering Drawing Types of building drawings, Abbreviation & symbols in civil drawing, Building byelaws for planning of residential building and industrial building, Planning of simple residential and industrial building	04	28
3	Construction Materials Common construction materials, Properties of each materials & their acceptable standards, Quality parameters of materials, Estimations and costing for simple structure (only the material cost)	02	16
4	Machine Foundations Provisions for foundation design considerations in machine foundations, Factors to be considered while designing machine foundations, Design foundations for simple machine like lathe, compression press, universal testing machine, electric power hammer etc, BIS CODE of practice for machine foundations I.S.- 2974 - Part –I& II	04	28

List Of Practical:

SR. No.	Experiment
1	Practice for linear measurements through ranging, chaining, taping offsetting, recording field book etc.
2	Practice for working on prismatic compass, dumpy Levels, for taking measurements and , recording length and angles.
3	Prepare surveying drawings using surveyed data
4	Test few construction materials such as cement, brick etc in laboratory
5	Visit of industry to observe the machine foundation and study of foundation design
6	Observe and draw machine foundation for some heavy machines.

Text Books / Reference Books:

Sr. No.	Title of Books	Author	Publication
1.	Basic knowledge in civil engineering	Narsimha Vavilala	Notion Press
2.	Basics of Civil Engineering	Gkp	G. K. Publications
3.	A Basic Concept Of Civil Engineering	Sunder narayan	atlantic
4.	Elements Of Civil Engineering	Dr. S S Bhavikatti	New Age International
5	Engineering Material	S.C. Rangwala	S.C. Rangwala
6	Surveying and leveling	N. N. Basak	Tata McGraw Hill Education
7	Civil engineering drawing	S.C. Rangwala	Charotar Publication
8	Building Construction	Dr.B.C.Punmia	Laxmi Pub. Delhi
9	Engineering Material	S.C. Rangwala	Charotar Publication
10	Town Planning	S. C. Rangwala	Charotar Publication

List of Open Source Software/learning website:

- a.<http://nptel.ac.in/courses/105107122/>
- b.<http://nptel.ac.in/courses/105107157/>
- c.<http://nptel.ac.in/courses/105101087/>

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

CLO	Description	Bloom's Taxonomy Level
CLO1	Knowledge about Use surveying tools and equipment's for field survey, leveling and Measurements.	3 Applying 2 Understanding
CLO2	interpret various aspect of the building and town planning	4 Analysis 2 Understanding
CLO3	identify the various building components, method of constructions , and services	4 Analysis 2 Understanding
CLO4	Drawing skill of Read and Interpret the building drawing	6 Creating 3 Applying 2 Understanding
CLO5	Assess the typical requirements of foundations for medium sized electrical and Mechanical Machines	6 Creating 5 Evaluating 4 Analyzing

Course Learning Outcomes	Program Outcomes(Pos)											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CLO1	H			M	L							
CLO2			H	M			L					
CLO3				H	M						L	
CLO4					H	M						L
CLO5	H	M	L									

H: High, M: Medium, L: Low