

FOURTH YEAR

No.	Subject	Studying Hours						Units
		First Semester			Second Semester			
		Theoretic al	Practic al	Applicato ry	Theoretic al	Practic al	Applicato ry	
1	Steel Design	2	-	1	2	-	1	4
2	Foundation Engg.	3	-	1	3	-	1	6
3	Transport Engg.	2	1	1	2	1	1	5
4	Reinforced Concrete	3	-	1	3	-	1	6
5	Hydraulic Structures	2	-	1	2	-	1	4
6	Sanitary & Environmental Engg.	2	1	1	2	1	1	5
7	Methods of Construction & Quantity Surveying	2	-	1	2	-	1	4
8	Engg. Hydrology	2	-	-	2	-	-	4
9	Engg. Project	-	4	-	-	4	-	4
Total		18	6	8	18	6	7	42
Total hour at Week		31			31			

CE 401 Steel Structures

Introduction, Tension Member, Compression Member, Design of Trusses, Flexural Members, Plate Girders and Box Girders, Members Under Biaxial Bending, Connections (Riveted, Bolted and welded)

CE 402 Foundation Engineering

Site Investigation, Lateral Earth Pressure, slope Stability, Bearing capacity of Soil, Settlement, Foundation Design, Piles.

CE 403 Transportation Engineering

Functional Classification of Highways, Location, Surveys, Earthwork Quantities, Design Control and Criteria, Elements of Geometric Design, Cross-Section Elements, Intersections,

Interchanges, Traffic Signals, Highway Paving Materials, Flexible Pavement Design, Rigid Pavement.

CE 404 Sanitary and Environmental Engineering

Water Treatment (Sedimentation, Coagulation Flocculation, Filtration and Disinfection), Special Treatment, Pipes, Distribution Systems, Runoff Discharge, Sewer Pipes, Sewer System, Waste Water Characteristics, Waste Water Treatment, River Pollution.

CE 405 Constructional Methods and Quantity Surveying

Construction Process, Project Realization, Construction Process Parties,
Project management, Role of Engineer and Contract, Planning
Techniques(Networks, Line of Balance), Resource Allocation, Types of
Equipments, Plant Management, Earthworks, Concrete Industry, Precast
Construction, Approximate Estimation, Detailed estimation, Pricing,
Technical Specifications, Term Project, Concrete Forms, Contract
Documents.

CE 406 Reinforced Concrete Design II

Two-Way Slabs, Direct Design Method, Equivalent Frame Method, Flat Slabs and flat Plates, Deflection of Two-way Slabs, Yield Line theory, prestressed concrete, Design of stairs.

CE 407 Hydrology

Hydraulic Cycle, Weather and Hydrology, Precipitation, Evaporation, Groundwater, Wells, Discharge Determination, Flood Waves.

CE 408 Hydraulic Structures

Hydraulic Structures, Rectangular Reinforces Concrete tanks, Circular Reinforces Concrete tanks, Beam on Elastic Foundation, Bridges, Barrages.

CE 409 Project