

REVISED ON 18-4-2017

Civil & Infrastructure Engineering

Semester 1st

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
2110014	Calculus	3	2	0	5	70	30	30	20	150	
2110002	Communication Skills	2	0	2	4	70	30	30	20	150	
2110005	Elements of Electrical Engineering	4	0	2	6	70	30	30	20	150	
2110006	Elements of Mechanical Engineering	4	0	2	6	70	30	30	20	150	
2110013	Engineering Graphics	2	0	4	6	70	30	30	20	150	
2110007	Env. Studies	3	0	0	3	70	30	0	0	100	
	Total	18	2	10	30						

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Semester 2nd

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
2110003	Computer Programming and Utilization	3	1	2	6	70	30	30	20	150	
2110012	Workshop	0	0	4	4	0	0	80	20	100	
2110015	Vector Calculus & Linear Algebra	3	2	0	5	70	30	30	20	150	
2110011	Physics	3	0	2	5	70	30	30	20	150	
2110004	Elements of Civil Engineering	4	0	2	6	70	30	30	20	150	
2990001	Contributory Personality Development	4	0	0	4	70	30	30	20	150	
	Total	17	3	10	30						

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Semester 3rd

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
2130002	Advance Engineering Maths	3	2	0	5	70	30	30	20	150	
	Building Technology & Materials	3	0	2	5	70	30	30	20	150	
	Geomatics Engineering	3	0	2	5	70	30	30	20	150	
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	
	Green Chemistry & Technology	3	0	2	5	70	30	30	20	150	
	Machineries & Equipments	3	0	0	3	70	30	0	0	100	
2130005	Design Engg. I-A	0	0	3	3	0	0	80	20	100	
	Total	19	2	11	32						

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Semester 4th											
Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
2140608	Concrete Technology	3	0	2	5	70	30	30	20	150	
	Building, Town and Infrastructure Planning	3	0	2	5	70	30	30	20	150	
	Fundamentals of Structural Analysis	3	0	2	5	70	30	30	20	150	
	Basics of Transportation Engineering	3	0	2	5	70	30	30	20	150	
2140606	Numerical And Statistical Methods for Civil Engineering	3	2	0	5	70	30	30	20	150	
2140003	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	
2140002	Design Engg. I-B	0	0	3	3	0	0	80	20	100	
	Total	18	2	11	31						

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Semester 5th											
Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Advanced Structural Analysis	3	2	0	5	70	30	30	20	150	
	Fluid Mechanics and Hydraulics	3	0	2	5	70	30	30	20	150	
	Geotechnical Engineering-1	3	0	2	5	70	30	30	20	150	
	Railway & Bridge Engineering	3	2	0	5	70	30	30	20	150	
	Industry Internship-1	0	0	2	2	0	0	80	20	100	
	Institute Elective	3	0	0	3	70	30	0	0	100	
2150001	Design Engg. II-A	0	0	3	3	0	0	80	20	100	
	Total	15	4	9	28						

	Institute Elective	3	0	0	3
2150002	Cyber Security	0	1	2	3
2150003	Disaster Management	3	0	0	3

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Semester 6th

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Design of Concrete Structures	3	2	0	5	70	30	30	20	150	
	Utilities for Civil Infrastructure	3	2	0	5	70	30	30	20	150	
	Geotechnical Engineering -2	3	0	2	5	70	30	30	20	150	
	Infrastructure Planning and Appraisal	3	1	0	4	70	30	30	20	150	
	Departmental Elective - I	3	2	0	5	70	30	30	20	150	
	Industry Internship-2	0	0	2	2	0	0	80	20	100	
2160001	Design Engg. II-B	0	0	3	3	0	0	80	20	100	
	Total	15	7	7	29						

Departmental Elective - I	3	2	0	5
Advanced Construction Methods & Equipments	3	2	0	5
Water and Wastewater Treatment Technologies	3	0	2	5
Construction Safety and Material Management	3	2	0	5
GIS & Remote Sensing for Infrastructure	3	2	0	5
Highway Planning & Construction	3	2	0	5

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Semester 7th

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Irrigation and Water Resources Engineering	3	2	0	5	70	30	30	20	150	
	Construction Planning & Management	3	2	0	5	70	30	30	20	150	
	Design of Steel and Masonary Structure	3	2	0	5	70	30	30	20	150	
	Departmental Elective – II	3	2	0	5	70	30	30	20	150	
	Software Learning Elective	0	0	4	4	0	0	80	20	100	
	Project – I	0	0	6	6	0	0	80	20	100	
	Total	12	8	10	30						

Departmental Elective – II				
Infrastructure Policies and Regulations	3	2	0	5
Prestressed Concrete Structures	3	2	0	5
Advanced Transportation Engineering	3	2	0	5
Computer Aided Structural Ananysis and Design	3	2	0	5

Software Learning Elective	0	0	4	4
Tool of Road Design	0	0	4	4
Tool of Piping Design	0	0	4	4
Green Building Design Studio	0	0	4	4
STAAD Pro	0	0	4	4
Structural Analysis Tool	0	0	4	4
Drawing Tool	0	0	4	4
AutoCAD and Google Skecthup	0	0	4	4
Tool of Geographical Information System (GIS)	0	0	4	4
Object Oriented Programming and Data Structures	0	0	4	4
Building Information Modeling (BIM) Tool	0	0	4	4
Project Planner Tool	0	0	4	4

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Semester 8th

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Professional Practice and Valuation of Infrastructure	3	2	0	5	70	30	30	20	150	
	Airport and Seaport Infrastructure	3	2	0	5	70	30	30	20	150	
	Departmental Elective – III	3	2	0	5	70	30	30	20	150	
	Departmental Elective – IV	3	2	0	5	70	30	30	20	150	
	Project – II	0	0	10	10	0	0	80	20	100	
	Total	12	8	0	20						

Departmental Elective – III				
Design of Hydraulic Structures	3	2	0	5
Air pollution and Noise Control	3	2	0	5
Contract Administration & Management	3	2	0	5
Design of Offshore Structures	3	2	0	5

Departmental Elective – IV				
Repair and Rehabilitation of Buildings	3	2	0	5
Pavement Analysis and Design	3	2	0	5
Optimisation of Engineering Systems	3	2	0	5
Design of Earthquake Resistant Structures	3	2	0	5