

COURSE STRUCTURE
for
CIVIL ENGINEERING
(B.Tech)



PRAGATI ENGINEERING COLLEGE
(Autonomous)

Permanently Affiliated to JNT University Kakinada and Approved by AICTE, New Delhi,
Accredited by NAAC with “A” Grade

Recognized by UGC 2(f) and 12(b) under UGC act, 1956

1-378, ADB Road, Surampalem – 533 437, Near Peddapuram, E.G.Dist., A.P.

I Year – I Semester

S. No.	Sub Code	Subject	L	T	P	C
1	16BH1T01	English – I	3	1	--	3
2	16BH1T03	Mathematics – I	3	1	--	3
3	16BH1T11	Engineering Chemistry	3	1	--	3
4	16CS1T01	Computer Programming using C	3	1	--	3
5	16ME1T01	Engineering Mechanics	3	1	--	3
6	16BH1T13	Environmental Studies	3	1	--	3
7	16BH1L01	English – Communication Skills Lab - I	--	--	3	2
8	16CS1L10	C Programming Lab	--	--	3	2
9	16BH1L05	Engineering/Applied Chemistry Lab	--	--	3	2
Total Credits						24

I Year – II SEMESTER

S. No.	Sub Code	Subject	L	T	P	C
1	16BH2T02	English – II	3	1	--	3
2	16BH2T04	Mathematics – II(Mathematical Methods)	3	1	--	3
3	16BH2T06	Mathematics – III	3	1	--	3
4	16ME2T02	Engineering Drawing	3	1	--	3
5	16ME2T03	Elements of Mechanical Engineering	3	1	--	3
6	16BH2T09	Engineering Physics	3	1	--	3
7	16ME2L01	Engineering Workshop & IT Workshop	--	--	3	2
8	16BH2L02	English – Communication Skills Lab - II	--	--	3	2
9	16BH2L03	Engineering/Applied Physics lab	--	--	3	2
10	16BH2L04	Engineering/Applied Physics-VirtualLab-Assignments	--	--	2	---
Total Credits						24

II Year – I SEMESTER

S. No.	Sub Code	Subject	L	T	P	C
1	16EE3T03	Basic Electrical and Electronics Engineering	3	1	--	3
2	16BH3T08	Probability & Statistics	3	1	--	3
3	16CE3T01	Building Materials & Construction	3	1	--	3
4	16CE3T02	Fluid Mechanics	3	1	--	3
5	16CE3T03	Strength of Materials-I	3	1	--	3
6	16CE3T04	Surveying	3	1	--	3
7	16CE3L01	Strength of Materials Lab	--	--	3	2
8	16CE3L02	Surveying Field work-I	--	--	3	2
9	16BH3T17	Professional Ethics & Human Values	--	--	3	---
Total Credits						22

II Year – II SEMESTER

S. No.	Sub Code	Subject	L	T	P	C
1	16CE4T05	Building Planning & Drawing	3	1	--	3
2	16CE4T06	Concrete Technology	3	1	--	3
3	16CE4T07	Engineering Geology	3	1	--	3
4	16CE4T08	Hydraulics & Hydraulic Machinery	3	1	--	3
5	16CE4T09	Strength of Materials-II	3	1	--	3
6	16CE4T10	Structural Analysis -I	3	1	--	3
7	16CE4L03	Fluid Mechanics & Hydraulic Machinery Lab	--	--	3	2
8	16CE4L04	Surveying Field work-II	--	--	3	2
9	16BH4T15	Management Science	2	--	--	--
10	16CE4S01	Seminar	2	--	--	--
Total Credits						22

III Year – I SEMESTER

S. No.	Sub Code	Subject	L	T	P	C
1	16BH5T14	Managerial Economics & Financial Analysis	3	1	--	3
2	16CE5T11	Design & Detailing of Reinforced Concrete Structures	3	1	--	3
3	16CE5T12	Geotechnical Engineering - I	3	1	--	3
4	16CE5T13	Structural Analysis - II	3	1	--	3
5	16CE5T14	Transportation Engineering - I	3	1	--	3
6	16CE5L05	Concrete Technology Lab	--	--	3	2
7	16CE5L06	Engineering Geology Lab	--	--	3	2
8	16CE5L07	Geotechnical Engineering Lab	--	--	3	2
9	16CE5M01	MOOCS	2	--	--	--
10	16BH5T16	IPR & Patents	2	--	--	--
Total Credits						21

III Year – II SEMESTER

S. No.	Sub Code	Subject	L	T	P	C
1	16CE6T15	Environmental Engineering-I	3	1	--	3
2	16CE6T16	Geotechnical Engineering-II	3	1	--	3
3	16CE6T17	Transportation Engineering - II	3	1	--	3
4	16CE6T18	Water Resource Engineering -I	3	1	--	3
5		Open Elective				
	16EC6E03	1. Electronics Instrumentation				
	16CS6E04	2. Data Base Management System				
	16EE6E05	3. Alternative Energy Systems	3	1	--	3
	16CE6E01	4. Waste Water Management				
	16CE6E02	5. Fundamentals of Liquefied Natural Gas				
	16CE6E03	6. Green Fuel Technology				
6	16CE6L08	Environmental Engineering Lab	--	--	3	2
7	16CE6L09	Transportation Engineering Lab	--	--	3	2
8	16CE6P01	Mini Project/Term Paper	--	--	--	2
Total Credits						21

IV Year – I SEMESTER

S. No.	Sub Code	Subject	L	T	P	C
1	16CE7T19	Design & Detailing of Steel Structures	3	1	--	3
2	16CE7T20	Environmental Engineering - II	3	1	--	3
3	16CE7T21	Remote Sensing & GIS Applications	3	1	--	3
4	16CE7T22	Water Resource Engineering-II	3	1	--	3
5	16CE7D01 16CE7D02 16CE7D03 16CE7D04 16CE7D05 16CE7D06	Elective –I	3	1	--	3
		1. Finite Element Method				
		2. Ground Improvement Techniques				
		3. Air Pollution & Control				
		4. Urban Hydrology				
		5. Repair & Maintenance of Structures				
6. Traffic Engineering						
6	16CE7D07 16CE7D08 16CE7D09 16CE7D10 16CE7D11 16CE7D12	Elective –II	3	1	--	3
		1. Earthquake Resistant Design				
		2. Advanced Foundation Engineering				
		3. Advanced Structural Engineering				
		4. Pavement Analysis & Design				
		5. Ground Water Development				
6. Environmental Impact Assessment & Management						
7	16CE7L10	Irrigation Drawing & CAED Practice	--	--	3	2
8	16CE7L11	GIS & CAD Lab	--	--	3	2
Total Credits						22

IV Year – II SEMESTER

S. No.	Sub Code	Subject	L	T	P	Credits
1	16CE8T23	Construction Technology & Management	3	1	--	3
2	16CE8T24	Estimating, Specifications & Contracts	3	1	--	3
3	16CE8T25	Prestressed Concrete	3	1	--	3
4	16CE8D13 16CE8D14 16CE8D15 16CE8D16 16CE8D17	Elective – 3	3	1	--	3
		1. Soil Dynamics & Machine Foundation				
		2. Solid And Hazardous Waste Management				
		3. Bridge Engineering				
		4. Water Resource System Planning				
5. Transportation Planning Engineering						
5	16CE8P02	Project Work	--	--	--	10
6	16CE8S02	Seminar on Internship Project/Comprehensive Evaluation	--	--	3	2
Total Credits						24

$$\text{Total Course Credits} = 48 + 44 + 42 + 46 = 180$$