

SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) FOR 8 SEMESTERS

S.No.	Course Work-Subject Area	Credits/Semester								Credits obtained	Credits needed
		I	II	III	IV	V	VI	VII	VIII		
1.	Humanities and Social Sciences (HS)		4		3	3				10 (5.10%)	5 to 10%
2.	Basic Sciences (BS)	11	11	3	3					28 (14.29%)	15 to 20%
3.	Engineering Sciences (ES)	10	6	13	8					37 (18.88%)	15 to 20%
4.	Professional Subjects- Core (PC)		2	10	10	21	17	16	3	79 (40.31%)	30 to 40%
5.	Professional Subject-Electives (PE)						3	6	6	15 (7.65%)	10 to 15%
6.	Open Subjects-Electives (OE)						3	3	3	9 (4.59%)	5 to 10%
7.	Project Work, Seminar and/or Internships (PW)						2	6	8	16 (8.16%)	10 to 15%
	TOTAL	23	23	26	24	24	25	31	20	196	
8.	Mandatory Courses (MC) (<i>Non-Credit</i>)	2							6U	2 (1.02%)	8 Units
	Contact hours/ week	33	32	31	31	30	27	30	23		

SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - I SEMESTER

S.No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	BS 101 MT	Mathematics-I	3	1	-	-	4	30	70	3
2	BS 102 PH	Engineering Physics-I	3	-	-	-	3	30	70	3
3	BS 103 CH	Engineering Chemistry-I	3	-	-	-	3	30	70	3
4	ES 101 CE	Engineering Mechanics-I	3	-	-	-	3	30	70	3
5	ES 102 CS	Computer programming & Problem Solving	3	-	-	-	3	30	70	3
6	MC 101 EG	Engineering English	3	-	-	-	3	30	70	1
7	BS 151 PH	Engineering Physics Lab-I	-	-	-	2	2	25	50	1
8	BS 152 CH	Engineering Chemistry Lab-I	-	-	-	2	2	25	50	1
9	ES 151 CS	Computer programming Lab	-	-	-	2	2	25	50	1
10	ES 152 ME	Workshop Practice-I	-	-	-	2	2	25	50	1
11	MC 151 EG	Engineering English Lab	-	-	-	2	2	25	50	1
12	ES 153 CE	Engineering Graphics-I	-	-	2x2	-	4	50	50	2
			18	01	04	10	33	355	720	23

SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - II SEMESTER

S.No.	Course Code	Course Title	Scheme of Instruction				Contact hr/week	Scheme of Examination		Credits
			L	T	Dr	P		CIE	SEE	
1	BS 201 MT	Mathematics-II	3	1	-	-	4	30	70	3
2	BS 202 PH	Engineering Physics-II	3	-	-	-	3	30	70	3
3	BS 203 CH	Engineering Chemistry-II	3	-	-	-	3	30	70	3
4	HS 201 EG	Business Communication and Presentation Skills	3	-	-	-	3	30	70	3
5	ES 201 CE	Engineering Mechanics-II	3	-	-	-	3	30	70	3
6	BS 251 PH	Engineering Physics Lab-II	-	-	-	2	2	25	50	1
7	BS 252 CH	Engineering Chemistry Lab-II	-	-	-	2	2	25	50	1
8	HS 251 EG	Communication Skills Lab	-	-	-	2	2	25	50	1
9	ES 251 CS	Computer Skills Lab	-	-	-	2	2	25	50	1
10	ES 252 CE	Engineering Graphics-II	-	-	2x2	-	4	50	50	2
11	PC 251 CE	Building Drawing	-	-	2x2	-	4	50	50	2
			15	01	08	08	32	350	650	23

Service Courses (Offered to other Departments)

S.No	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	ES 221 CE	Applied Mechanics	3	-	-	3	30	70	3

SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - III SEMESTER

S.No.	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	BS 901 MT	Mathematics-III	3	1	-	4	30	70	3
2	ES 301CE	Engineering Geology	3	-	-	3	30	70	3
3	ES 302CE	Strength of Materials-I	3	1	-	4	30	70	3
4	ES 303 CE	Fluid Mechanics-I	3	1	-	4	30	70	3
5	PC 301 CE	Building Materials and Construction	3	-	-	3	30	70	3
6	PC 302 CE	Surveying-I	3	-	-	3	30	70	3
7	PC 303 CE	Construction Management and Technology	3	-	-	3	30	70	3
8	ES 321EE/ME	Electrical and Mechanical Technology	3	-	-	3	30	70	3
9	ES 351 CE	Engineering Geology lab	-	-	2	2	25	50	1
10	PC 351 CE	Surveying-I lab	-	-	2	2	25	50	1
			24	03	04	31	290	660	26

Service Courses (Offered to other Departments)

S.No	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	ES 321 CE	Mechanics of Materials	3	-	-	3	30	70	3
2	ES 341 CE	Mechanics of Materials Lab	-	-	2	2	25	50	1

SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - IV SEMESTER

S.No.	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	BS 401 MT	Numerical Methods	3	1	-	4	30	70	3
2	ES 401 CE	Strength of Materials-II	3	1	-	4	30	70	3
3	ES 402 CE	Fluid Mechanics-II	3	1	-	4	30	70	3
4	PC 401 CE	Surveying-II	3	-	-	3	30	70	3
5	PC 402 CE	Hydrology and Water Management	3	-	-	3	30	70	3
6	PC 403 CE	Reinforced Cement Concrete	3	1	-	4	30	70	3
7	HS 401 BT	Environmental Sciences	3	-	-	3	30	70	3
8	ES 451 CE	Material Testing lab	-	-	2	2	25	50	1
9	ES 452 CE	Fluid Mechanics-I lab	-	-	2	2	25	50	1
10	PC 451 CE	Surveying-II Lab	-	-	2	2	25	50	1
			21	04	06	31	285	640	24

SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - V SEMESTER

S.No.	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	PC 501 CE	Hydraulic Machines	3	1	-	4	30	70	3
2	PC 502 CE	Theory of Structures-I	3	1	-	4	30	70	3
3	PC 503 CE	Steel Structures	3	1	-	4	30	70	3
4	PC 504 CE	Soil Mechanics	3	-	-	3	30	70	3
5	PC 505 CE	Concrete Technology	3	-	-	3	30	70	3
6	PC 506 CE	Water Resource Engg-I	3	-	-	3	30	70	3
7	HS 501 MB	Managerial Economics and Accountancy	3	-	-	3	30	70	3
8	PC 551 CE	Fluid Mechanics-II lab	-	-	2	2	25	50	1
9	PC 552 CE	Concrete Technology lab	-	-	2	2	25	50	1
10	PC 553 CE	Soil Mechanics Lab	-	-	2	2	25	50	1
			21	03	06	30	285	640	24

SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) -VI SEMESTER

S.No.	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	PC 601 CE	Theory of Structures-II	3	1	-	4	30	70	3
2	PC 602 CE	Foundation Engg	3	-	-	3	30	70	3
3	PC 603 CE	Environmental Engg	3	-	-	3	30	70	3
4	PC 604 CE	Water Resources Engg-II	3	1	-	4	30	70	3
5	PC 605 CE	Transportation Engg-I	3	-	-	3	30	70	3
6		Professional Elective-I	3	-	-	3	30	70	3
7		Open Elective-I	3	-	-	3	30	70	3
8	PC 651 CE	Environmental Engg lab	-	-	2	2	25	50	1
9	PC 652 CE	Transportation Engg Lab	-	-	2	2	25	50	1
10	PW661 CE	Survey Camp						50	2
11		Summer Internship							
			21	02	04	27	260	640	25
PROFESSIONAL ELECTIVE-I					OPEN ELECTIVE-I				
1	PE 601 CE	Structural Dynamics	1	OE 601 BM		Micro Electro Mechanical Systems (MEMS)			
2	PE 602 CE	Water Power Engineering	2	OE 601 CE		Disaster Management			
3	PE 603 CE	Ground Improvement Techniques	3	OE 602 CE		Geo-spatial Techniques			
4	PE 604 CE	Soft Computing Techniques in Civil Engg	4	OE 601 CS		Operating Systems			
			5	OE 602 CS		OOPS with JAVA			
			6	OE 601 EC		Embedded Systems			
			7	OE 602 EC		Signal Analysis & Transformation Techniques			
			8	OE 601 EE		Reliability Engineering			
			9	OE 601 ME		Robotics			
			10	OE 602 ME		Material Handling			
			11	OE 601 LA		Intellectual Property Rights			

SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - VII SEMESTER

S.No.	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	PC 701 CE	Structural Engg Design and Drawing-I (Concrete)	3	1	-	4	30	70	3
2	PC 702 CE	Pre-Stressed Concrete	3	-	-	3	30	70	3
3	PC 703 CE	Estimation Costing and Specifications	3	1	-	4	30	70	3
4	PC 704 CE	Transportation Engg-II	3	-	-	3	30	70	3
5	PC 705 CE	Finite Element Techniques	3	-	-	3	30	70	3
6		Professional Elective-II	3	-	-	3	30	70	3
7		Professional Elective-III	3	-	-	3	30	70	3
8		Open Elective-II	3	-	-	3	30	70	3
9	PC 751 CE	Computer Applications lab	-	-	2	2	25	50	1
10	PW761 CE	Summer Internship	-	-	-	-	50	-	2
11	PW762 CE	Project Work-I	-	-	2	2	50	-	4
			24	02	04	30	365	610	31
PROFESSIONAL ELECTIVE-II			OPEN ELECTIVE-II						
1	PE 701 CE	Earthquake Resistant Design	1	OE 701 BM		Image processing			
2	PE 702 CE	Wastewater Treatment	2	OE 701CE		Optimization Techniques			
3	PE 703 CE	Designing with Geo-Synthetics	3	OE 701 CS		Data Base Management Systems			
4	PE 704 CE	Watershed Management	4	OE 702 CS		Information Security Systems			
PROFESSIONAL ELECTIVE-III			5	OE 701 EC		Neural Networks			
5	PE 705 CE	Applied Hydrology	6	OE 701 EE		Renewable Energy Sources			
6	PE 706 CE	Introduction to Climate Change	7	OE 701 ME		Entrepreneurship			
7	PE 707 CE	Computer Aided Analysis and Design	8	OE 702 ME		Finite Element Methods*			
8	PE 708 CE	Advanced Concrete Technology							

* not applicable for Civil Engineering Department students

SCHEME OF INSTRUCTION FOR B.E. (CIVIL ENGG) - VIII SEMESTER

S.No.	Course Code	Course Title	Scheme of Instruction			Contact hr/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	PC 801 CE	Structural Engg Design and Drawing - II (Steel)	3	1	-	4	30	70	3
2		Professional Elective-IV	3	-	-	3	30	70	3
3		Professional Elective-V	3	-	-	3	30	70	3
4		Open Elective-III	3	-	-	3	30	70	3
5	MC 901EG	Gender Sensitization	3	-	-	3	30	70	3U
6	PW 961 CE	Project Work-II	-	-	4	4	50	100	8
7		Mandatory course	3	-	-	3	30	70	3U
			15	01	8	23	230	520	20
PROFESSIONAL ELECTIVE-IV			PROFESSIONAL ELECTIVE-V						
1	PE 801 CE	Retrofitting and Rehabilitation of Structures	1	PE 805 CE	Prefabrication Engineering				
2	PE 802 CE	Infrastructure Development	2	PE 806 CE	Design of Bridges				
3	PE 803 CE	Groundwater Management	3	PE 807 CE	Advanced Reinforced Concrete Design				
4	PE 804 CE	Intelligent Transportation Systems	4	PE 808 CE	Traffic Engineering and Infrastructure Design				
OPEN ELECTIVE-III									
1	OE 801MT	Statistical Applications in Engineering	5	OE 801 EC	Pattern Recognition				
2	OE 801BM	Human Factor Engineering	6	OE 801 EE	Utilization of Electrical Energy				
3	OE 801 CE	Road Safety Engineering	7	OE 801ME					
4	OE 802 CE	Green Building Technologies							
5	OE 801 CS	Software Engineering							
MANDATORY COURSE									
	MC 951 SP	Yoga Practice							
	MC 952 SP	NSS							
	MC 953 SP	Sports							