

JALPAIGURI GOVERNMENT ENGINEERING COLLEGE
JALPAIGURI- 735102
(An Autonomous Government College)

COURSE STRUCTURE
FOR
FIRST SEMESTER TO EIGHTH SEMESTER B.TECH. DEGREE
IN
CIVIL ENGINEERING

(Implemented for the new entry batch from the Academic Year 2021-22)



www.jgec.ac.in

Phone: 03561 – 255131 (Principal), Fax: 03561 – 256143

CC	SC	Subject Name	Contact Hrs. /Week		CC	SC	Subject name	Contact Hrs. /Week	
			L-T-P-TO	Cr.				L-T-P-TO	Cr.
BSC	BS-PH101	Physics	3-1-0-4	4	BSC	BS-CH201	Chemistry	3-1-0-4	4
BSC	BS-MI01B	Mathematics-1B	3-1-0-4	4	BSC	BS-M201B	Mathematics-IIB	3-1-0-4	4
ESC	ES-CS101	Programming for Problem Solving	3-0-0-3	3	ESC	ES-EE201	Basic Electrical Engineering	3-1-0-4	4
BSC	BS-PH191	Physics Laboratory	0-0-3-3	1.5	HUM	HM-HU201	English	2-0-0-2	2
ESC	ES-CS191	Programming for Problem Solving Laboratory	0-0-4-4	2	BSC	BS-CH291	Chemistry Laboratory	0-0-3-3	1.5
ESC	ES-ME191	Workshop/Manufacturing Practice	1-0-4-5	3	ESC	ES-EE291	Basic Electrical Engineering Laboratory	0-0-2-2	1
Mandatory Induction Program- 3 weeks duration. It is to be done before initiation of classes (theoretical, laboratory & sessional) as per syllabus following guidelines of AICTE and MAKAUT					ESC	ES-ME291	Engineering Graphics & Design	1-0-4-5	3
			10-2-11-23	17.5	HUM	HM-HU291	Language Laboratory	0-0-2-2	1
BSC	BS-M(CE)301	Mathematics – III	2-1-0-3	3					
BSC	BS-CE301	Biology for Engineers	2-0-0-2	2	HUM	HU-CE401	Value & Ethics in Profession	2-0-0-2	2
ESC	ES-CE301	Fluid Mechanics &Hydraulic Machines	2-1-0-3	3	ESC	ES-CE401	Solid Mechanics	2-1-0-3	3
PCC	ES-CE302	Engineering Mechanics	3-0-0-3	3	PCC	PC-CE401	Concrete Technology & Construction Materials	3-0-0-3	3
PCC	PC-CE301	Surveying & Geomatics	2-1-0-3	3	PCC	PC-CE402	Engineering Hydrology	3-0-0-3	3
PCC	PC-CE302	Engineering Geology	2-1-0-3	3	PCC	PC-CE403	Soil Mechanics I	3-0-0-3	3
MC	MC-CE301	Energy and Environmental Science	2-0-0-2	0	PCC	PC-CE404	Environmental Engineering- I	3-0-0-3	3
ESC	ES-CE391	Fluid Mechanics Laboratory	0-0-2-2	1	MC	MC-CE401	Essence of Traditional Knowledge	2-0-0-2	0
ESC	ES-CE392	Computer-Aided Civil Engineering Drawing	0-0-3-3	1.5	ESC	ES-CE491	Solid Mechanics Laboratory	0-0-2-2	1
PCC	PC-CE391	Surveying & Geomatics Laboratory	0-0-3-3	1.5	PCC	PC-CE491	Concrete Technology Laboratory	0-0-2-2	1
			15-4-8-27	21	PCC	PC-CE492	Construction Material Laboratory	0-0-2-2	1
PCC	PC-CE501	Design of RCC Structures	3-0-0-3	3	PCC	PC-CE493	Soil Mechanics Laboratory	0-0-2-2	1
PCC	PC-CE502	Structural Analysis I	3-0-0-3	3					
PCC	PC-CE503	Soil Mechanics II	3-0-0-3	3	PCC	PC-CE601	Construction Engineering & Management	3-0-0-3	3
PCC	PC-CE504	Environmental Engineering II	3-0-0-3	3	PCC	PC-CE602	Engineering Economics, Estimation & Costing	2-0-0-2	2
PCC	PC-CE505	Transportation Engineering	3-0-0-3	3	PCC	PC-CE603	Water Resource Engineering	2-0-0-2	2
MC	MC-CE501	Constitution of India	3-0-0-3	0	PCC	PC-CE604	Design of Steel Structures	2-1-0-3	3
PCC	PC-CE591	RCC Structures Design Lab.	0-0-2-2	1	PCC	PC-CE605	Foundation Engineering	2-1-0-3	3
PCC	PC-CE592	Soil Mechanics Laboratory	0-0-2-2	1	PCC	PC-CE606	Structural Analysis II	2-1-0-3	3
PCC	PC-CE593	Environmental Laboratory	0-0-2-2	1	OEC	OE-CE601	Open Elective I (Humanities) A: Soft Skills and Interpersonal Communication B: Introduction to Philosophical Thoughts C: Economic Policies in India	2-0-0-2	2
PCC	PC-CE59 4	Transportation Engineering Laboratory	0-0-2-2	1	PCC	PC-CE691	Steel Structure Design Sessional	0-0-3-3	1.5
			18-0-8-26	19	PCC	PC-CE692	Water Resource Engineering Laboratory	0-0-2-2	1
HUM	HU-CE701	Financial Management and Accounts	3-0-0-3	3	PCC	PC-CE693	Quantity Survey, Estimation & Valuation Sessional	0-0-3-3	1.5
OEC	OE-CE701	Open Elective II A: Metro System and Engineering B: ICT for Development C: Cyber Law and Ethics	3-0-0-3	3	PCC	PC-CE694	Computer Application in CE	0-0-2-2	1
PEC	PE-CE701	Professional Elective I A: GIS and Remote Sensing B: Pavement Design and	3-0-0-3	3					
PEC	PE-CE801	Professional Elective VI A: Computational Hydraulics B: Hydraulic Structures C: Disaster Preparedness & Planning	3-0-0-3	3	OEC	OE-CE801	-Open Elective III A: Human Resource Development and Organizational behavior B: Deep Foundation C: Ground Water Contamination	3-0-0-3	3
OEC	OE-CE801	Open Elective III A: Human Resource Development and Organizational behavior B: Deep Foundation C: Ground Water Contamination	3-0-0-3	3	OEC	OE-CE802	Open Elective IV A: Soft Skills and Personality Development	3-0-0-3	3
			15-3-10-28	23					

		Construction C: Advance Foundation Engineering					B: Urban hydrology and hydraulics C: Environmental Impact Assessment and Life Cycle Assessment		
PEC	PE-CE702	Professional Elective II A: Pre-stressed Concrete B: Finite Element Method C: Repair and Rehabilitation of Structure	2-0-0-2	2	Proj	PR-CE881	Project II	0-0-12-12	6
PEC	PE-CE703	Professional Elective III A: Air and Noise Pollution and Control B: Physico-chemical Process for Water and Wastewater Treatment C: Water & Water Quality Modelling	2-0-0-2	2	Proj	PR-CE882	Comprehensive Viva Voce	0-0-0-0	1
PEC	PE-CE704	Professional Elective IV A: Structural Dynamics & Earthquake Engineering B: Advance Structural analysis C: Industrial Structure	2-0-0-2	2	Proj	PR-CE883	Seminar	0-0-0-0	1
PEC	PE-CE705	Professional Elective V A: Bridge Engineering B: Urban Transport Planning C: Railway and Airport Engineering	2-0-0-2	2	IN	PR-CE884	Internship Evaluation	0-0-0-0	0
Proj	PR-CE781	Project I (Project Work)	0-0-8-8	4					
			17-0-8 -25	21				9-0-12 -21	17