

DELHI TECHNOLOGICAL UNIVERSITY
BACHELOR OF TECHNOLOGY
Civil Engineering

Scheme for I Year

Teaching Scheme					Contact Hours/Week			Exam Duration(h)		Relative Weights (%)					
I Year: First Semester															
S. No.	Subject Code	Course Title	Subject Area Credit	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE	
1	AM101	Mathematics-I	BSC	4	3	1	0	3	0	25	-	25	50	-	
2	AP101	Physics	BSC	4	3	0	2	3	0	15	25	20	40	-	
3	EE105	Basic Electrical Engineering-II	ESC	4	3	0	2	3	0	15	25	20	40	-	
4	ME107	Basic Mechanical Engineering	ESC	4	3	0	2	3	0	15	25	20	40	-	
5	CE103	Testing of Civil Engineering Material	SEC	2	1	0	2	0	3	-	50	-	-	50	
6	AEC/VAC	AEC-1/VAC-1	AEC/VAC	2	2/1/0	0	0/2/4	3/3/0	0/2/3	25/15/0	0/25/50	25/20/0	50/40/0	0/0/50	
	Total			20											
I Year: Second Semester															
1	AM102	Mathematics-II	BSC	4	3	1	0	3	0	25	-	25	50	-	
2	CO102	Programming Fundamentals	ESC	4	3	0	2	3	0	15	25	20	40	-	
3	CE102	Statistical Methods for Engineers	ESC	4	3	1	0	3	0	25	-	25	50	-	
4	CE104	Mechanics of Solids	DCC	4	3	0	2	3	0	15	25	20	50	-	
5	CE106	Engineering Graphics & Building Design	SEC	2	1	0	2	0	3	-	50	-	-	50	
6	AEC/VAC	AEC-2/VAC-2	AEC/VAC	2	2/1/0	0	0/2/4	3/3/0	0/2/3	25/15/0	0/25/50	25/20/0	50/40/0	0/0/50	
	Total			20											

II Year: III Semester														
Teaching Scheme					Contact Hours/ Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CE201	Introduction to Earth, Atmosphere, Climate, and Environmental Sciences	ESC1	4	3	1	0	3	0	25	-	25	50	-
2	CE203	Design of Structure-I	DCC2	4	3	0	2	3	2	15	25	20	40	-
3	CE205	Fluid Mechanics	DCC3	3	3	0	2	3	2	15	25	20	40	-
4	CE207	Surveying & Geoinformatics	DCC4	4	3	0	2	3	2	15	25	20	40	-
5	CE209	Analysis of Structures -I	DCC5	4	3	0	2	3	2	15	25	20	40	-
6	AEC/VAC	Value Addition Course -1*	VAC 1	4	2/1/0	0	0/2/4	As per LTP						
7	MS299	Community Engagement Course	Mandatory	2										
		Total Credits		24										

II Year: IV Semester														
Teaching Scheme					Contact Hours/ Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CE202	Smart City Planning and Intelligent Transportation	ESC2	4	3	1	0	3	0	25	-	25	50	-
2	CE204	Analysis of Structures -II	DCC6	4	3	0	2	3	2	15	25	20	40	-
3	CE206	Soil Mechanics	DCC7	4	3	0	2	3	2	15	25	20	40	-
4	CE208	Environmental Engineering-I	DCC8	4	3	0	2	3	2	15	25	20	40	-
5	CE210	Hydraulic & Hydraulics Machines	DCC9	3	3	0	2	3	2	15	25	20	40	-
6	AEC/VAC	Value Addition Course -2*	VAC 2	2	2/1/0	0	0/2/4	As per LTP						
		Total Credits		23										
*To be floated centrally. See details for contact hours and the duration of the subject exam.														

III Year: V Semester														
Teaching Scheme					Contact Hours/ Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CE301	Geotechnical Engineering	DCC10	4	3	0	2	3	2	15	25	20	40	-
2	CE303	Environment Engineering-II	DCC11	4	3	0	2	3	2	15	25	20	40	-
3	CE305	Transportation Engineering	DCC12	4	3	0	2	3	2	15	25	20	40	-
4	HU301	Engineering Economics/ Fundamentals of Management	SEC 1	3	3	0	0	3	0	20	-	30	50	-
5	CE307	Application of Geo-informatics, Remote sensing and GIS in Engineering	GEC1	4	3	0	2	3	2	15	25	20	40	-
6	CE309	Wind Loads on Structures	DEC 1	4	3	0	2	3	2	15	25	20	40	-
7	CE311	Disaster Management			3	0	2	3	2	15	25	20	40	-
8	CE313	Rock Engineering			3	0	2	3	2	15	25	20	40	-
9	CE315	Advanced Mechanics of Soils			3	0	2	3	2	15	25	20	40	-
10	CE317	Water Power Engineering			3	0	2	3	2	15	25	20	40	-
11	CE319	Water Recourses Planning and System Engineering			3	0	2	3	2	15	25	20	40	-
12	CE321	Computational Fluid Dynamics			3	0	2	3	2	15	25	20	40	-
13	CE323	Quantity Survey and Estimation			3	1	0	3	0	25	-	25	50	-
14	CE325	Geodesy and Navigation			3	0	2	3	2	15	25	20	40	-
15	CE327	AI in Civil Engineering			3	1	0	3	0	25	-	25	50	-
16	CE329	Concrete Technology			3	0	2	3	2	15	25	20	40	-
		Total Credits		23										

III Year: VI Semester														
	Teaching Scheme				Contact Hours/ Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CE302	Design of steel structures	DCC13	4	3	1	0	3	0	25	-	25	50	-
2	CE304	Water Resource Engineering	DCC14	4	3	0	2	3	2	15	25	20	40	-
3	HU302	Engineering Economics/ Fundamentals of Management	SEC2	3	3	0	0	3	0	20	-	30	50	-
4	CE306	Infrastructure resilience and socio-economic dynamics	GEC 2	4	3	1	0	3	0	25	-	25	50	-
5	CE308	Advanced Design of Structures	DEC2	4	3	1	0	3	0	25	-	25	50	-
6	CE310	Advanced Design of Steel Structures			3	1	0	3	0	25	-	25	50	-
7	CE312	Analysis and Design of Underground Structures			3	1	0	3	0	25	-	25	50	-
8	CE314	Theory of Elasticity and Plasticity of Soil			3	1	0	3	0	25	-	25	50	-
9	CE316	Advanced Fluid Mechanics			3	0	2	3	2	15	25	20	40	-
10	CE318	Environmental Aspects of Water Resources			3	0	2	3	2	15	25	20	40	-
11	CE320	Transportation Safety and Environment			3	1	0	3	0	25	-	25	50	-
12	CE322	Tunnel, Ports and Harbour Engineering			3	1	0	3	0	25	-	25	50	-
13	CE342	Experimental Mechanics	DEC3	4	3	0	2	3	2	15	25	20	40	-
14	CE324	Earthquake Technology			3	1	0	3	0	25	-	25	50	-
15	CE326	Cyclonic Risk and Management			3	0	2	3	2	15	25	20	40	-
16	CE328	Fire Safety			3	1	0	3	0	25	-	25	50	-
17	CE330	Geotechnical Processes			3	0	2	3	2	15	25	20	40	-
18	CE332	Transportation Geo- Geo-techniques			3	0	2	3	2	15	25	20	40	-
19	CE334	Design of Hydraulic Structures			3	0	2	3	2	15	25	20	40	-
20	CE336	Advanced Groundwater Hydrology			3	1	0	3	0	25	-	25	50	-
21	CE338	Advanced Transportation Engineering			3	0	2	3	2	15	25	20	40	-
22	CE340	Solid Waste Management and Air Pollution			3	0	2	3	2	15	25	20	40	-
23	CE344	Building materials, masonry, prestressing and construction management			3	0	2	3	2	15	25	20	40	-
Total Credits					23									

IV Year: VII Semester														
	Teaching Scheme				Contact Hours/ Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CE401	B. Tech Project-I	DCC15	4	-	-	-	-	-	-	40	-	-	60
2	CE403	Internship*	DCC16	2	-	-	-	-	-	-	-	-	-	-
3	CE405	Wind Effects on Structures and Wind Energy Systems	GEC3	4	3	0	2	3	2	15	25	20	40	-
4	CE407	Introduction to Building Information Modelling (BIM)	DEC4	4	3	0	2	3	2	15	25	20	40	-
5	CE409	Design of Bridges			3	1	0	3	0	25	-	25	50	-
6	CE415	Geotechnical Exploration and Excavation Methods			3	0	2	3	2	15	25	20	40	-
7	CE423	Advanced Open Channel Flow			3	0	2	3	2	15	25	20	40	-
8	CE425	Flood and Drought Estimation and Management			3	1	0	3	0	25	-	25	50	-
9	CE431	Traffic Engineering			3	1	0	3	0	25	-	25	50	-
10	CE433	Advanced Surveying and Geoinformatics			3	0	2	3	2	15	25	20	40	-
11	CE441	Finite Element Method			3	0	2	3	2	15	25	20	40	-
12	CE445	Integrated Intelligent Transportation System			3	1	0	3	0	25	-	25	50	-
13	CE411	Forensic Engineering	DEC5	4	3	0	2	3	2	15	25	20	40	-
14	CE413	Vulnerability and Risk Management			3	1	0	3	0	25	-	25	50	-
15	CE417	Computer Methods in Geotechnical Engineering			3	1	0	3	0	25	-	25	50	-
16	CE419	Environmental Geo-techniques			3	0	2	3	2	15	25	20	40	-
17	CE421	Geosynthetics			3	0	2	3	2	15	25	20	40	-
18	CE427	Advanced Hydrology			3	1	0	3	0	25	-	25	50	-
19	CE429	Urban Water Resources Management			3	1	0	3	0	25	-	25	50	-
20	CE435	Construction Project Management			3	1	0	3	0	25	-	25	50	-
21	CE437	Construction and Design Aspects in Transportation Engineering			3	1	0	3	0	25	-	25	50	-
22	CE439	Traffic and Transport Planning			3	1	0	3	0	25	-	25	50	-
23	CE443	Sustainable Building Materials			3	0	2	3	2	15	25	20	40	-
24	VAC	Indian Knowledge System	-	0	-	-	-	-	-	-	-	-	-	-
	Total Credit			18										

IV Year: VIII Semester

IV Year: VIII Semester														
	Teaching Scheme				Contact Hours/ Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CE402	B. Tech Project-II	DCC17	8	-	-	-	-	-	-	40	-	-	60
2	CE404	Structural Health Monitoring and Sustainability	GEC4	4	3	1	0	3	0	25	-	25	50	-
3	CE406	Prestress Concrete Structures	DEC6	4	3	0	2	3	2	15	25	20	40	-
4	CE408	Retrofitting of Structures			3	0	2	3	2	15	25	20	40	-
5	CE410	Advanced Geotechnical Engineering			3	0	2	3	2	15	25	20	40	-
6	CE412	Climate Change and Sustainable Development			3	1	0	3	0	25	-	25	50	-
7	CE414	Urban Planning and Flood Management			3	1	0	3	0	25	-	25	50	-
8	CE416	Design of Masonry, Timber & Bamboo Structures			3	0	2	3	2	15	25	20	40	-
9	CE418	Water Resources Management			3	1	0	3	0	25	-	25	50	-
	Total Credits			16										
	Commutative Credits			164 *										

The 164 credits as described above and an additional 02 credits are to be earned from a mandatory community engagement course in the first year to fulfil the requirement of the award of the four-year B. tech. Degree. On exit, the student shall be awarded a B. Tech. (Major discipline).