

# **DELHI TECHNOLOGICAL UNIVERSITY**

## **BACHELOR OF TECHNOLOGY Civil Engineering**

### **List of Minors**

- **Minor in Civil Engineering**
- **Minor in Sustainable Infrastructure**
- **Minor in Disaster Mitigation and Management**
- **Minor in AI & Data Analytics in Civil Engineering**

1. MINOR IN CIVIL ENGINEERING			
S.No.	Course Code	Course Title	Course Type
1.	CE101	Basic Civil Engineering	Compulsory
2.	CE104	Mechanics of Solids	Compulsory
3.	CE206	Soil Mechanics	Compulsory
4.	CE209	Analysis of Structures-I	Compulsory
5.	CE203	Design of Structures-I	Elective
6.	CE205	Fluid Mechanics	Elective
7.	CE301	Geotechnical Engineering	Elective
8.	CE302	Design of Steel Structures	Elective
9.	CE305	Transportation Engineering	Elective
10.	CE311	Disaster Management	Elective
11.	CE324	Earthquake Technology	Elective
12.	CE404	Structure Health Monitoring and Sustainability	Elective (GEC)
13.	CE407	Introduction to Building Information Modelling (BIM)	Elective
14.	CE431	Traffic Engineering	Elective
15.	CE433	Advanced Surveying and geo-informatics	Elective
16.	CE435	Construction Project Management	Elective
2. MINOR IN SUSTAINABLE INFRASTRUCTURE			
S.No.	Course Code	Course Title	Course Type
1.	CE101	Basic Civil Engineering	Compulsory
2.	CE205	Fluid Mechanics	Compulsory

3.	CE206	Soil Mechanics	Compulsory
4.	CE208	Environmental Engineering-I	Compulsory
5.	CE306	Infrastructure Resilience and Socio-Economic Dynamics	Elective (GEC)
6.	CE307	Application of Geo-informatics and GIS in Engineering	Elective (GEC)
7.	CE318	Environmental Aspects of Water Resources	Elective
8.	CE320	Transportation Safety and Environment	Elective
9.	CE340	Solid Waste Management and Air Pollution	Elective
10.	CE404	Structure Health Monitoring and Sustainability	Elective (GEC)
11.	CE405	Wind Effect on Structures and Wind Energy Systems	Elective (GEC)
12.	CE412	Climate Change and Sustainable Development	Elective
13.	CE413	Vulnerability and Risk Management	Elective
14.	CE414	Urban Planning and Flood Management	Elective
15.	CE425	Flood and Drought Estimation and Management	Elective
16.	CE429	Urban Water Resources Management	Elective
17.	CE445	Integrated Intelligent Transportation System	Elective
<b>3. MINOR IN DISASTER MITIGATION AND MANAGEMENT</b>			
S.No.	Course Code	Course Title	Course Type
1.	CE101	Basic Civil Engineering	Compulsory
2.	CE104	Mechanics of Solids	Compulsory

3.	CE207	Surveying and Geo-informatics	Compulsory
4.	CE311	Disaster Management	Compulsory
5.	CE306	Infrastructure Resilience and Socio-Economic Dynamics	Elective (GEC)
6.	CE307	Application of Geo-informatics, Remote Sensing, and GIS in Engineering	Elective (GEC)
7.	CE309	Wind Loads on Structures	Elective
8.	CE324	Earthquake Technology	Elective
9.	CE326	Cyclonic Risk and Management	Elective
10.	CE405	Wind Effect on Structures and Wind Energy System	Elective (GEC)
11.	CE408	Retrofitting of Structures	Elective
12.	CE412	Climate Change and Sustainable Development	Elective
13.	CE413	Vulnerability and Risk Management	Elective
14.	CE415	Geotechnical Exploration and Excavation Methods	Elective
15.	CE425	Flood and Drought Estimation and Management	Elective

#### 4. MINOR IN AI & DATA ANALYTICS IN CIVIL ENGINEERING

S. No.	Course Code	Course Title	Course Type
1.	CS/SE/IT***	Data Analytics	Compulsory
2.	CE101	Basic Civil Engineering	Compulsory
3.	CE327	AI in Civil Engineering	Choose one
4.	CE201	Introduction to Earth, Atmosphere, Climate, and Environmental Sciences	Elective
5.	CE202	Smart City Planning and Intelligent Transportation	Elective
6.	CE207	Surveying and Geo-informatics	Elective
7.	CE306	Infrastructure Resilience and Socio-Economic Dynamics	Elective (GEC)
8.	CE307	Application of Geo-informatics, Remote Sensing, and GIS in Engineering	Elective (GEC)
9.	CE321	Computational Fluid Dynamics	Elective
10.	CE405	Wind Effect on Structures and Wind Energy System	Elective (GEC)
11.	CE407	Introduction to Building Information Modelling (BIM)	Elective
12.	CE404	Structure Health Monitoring and Sustainability	Elective (GEC)
13.	CE414	Urban Planning and Flood Management	Elective
14.	CE417	Computer Methods in Geotechnical Engineering	Elective
15.	CE425	Flood and Drought Estimation and Management	Elective
16.	CE435	Construction Project Management	Elective
17.	CE439	Traffic and Transport Planning	Elective
18.	CE445	Integrated Intelligent Transportation Systems	Elective

**Note:**

- Minor specialisation refers to students from other disciplines (excluding B. Tech. Civil Engineering).
- Necessary credits, as per prevailing guidelines, should be earned.
- There are some cases of equivalence of subjects with other departments and are mentioned separately.