

Maulana Azad National Institute of Technology, Bhopal - 462003

DEPARTMENT OF CIVIL ENGINEERING

SCHEME FOR B.TECH. (Civil Engineering)

(2021 admitted batch onwards)

First Year Credits (Cumulative) 45

THIRD SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
MTH 231	Mathematics-3	3	1	-	4
HUM 251	Fundamentals of Entrepreneurship	3	-	-	3
CE 211	Structural Analysis	3	-	-	3
CE 212	Surveying	3	-	-	3
CE 213	Fluid Mechanics-1	3	-	-	3
CE 214	Engineering Geology	3	-	-	3
CE 215	Surveying Lab-1	-	-	2	1
CE 216	Fluid Mechanics Lab -1	-	-	2	1
CE 217	Engineering Geology Lab	-	-	2	1
CE 218	Professional Practices	-	2	-	2
Total Hours =27		18	3	6	24
Total Credits (Cumulative)					69
Additional Subject: - National Cadet Corps (NCC)					
NCC 251	National Cadet Corps III	1	5	1	7
Total Credits (Cumulative)					11

FOURTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
CE 221	Computational Geodesy	3	-	-	3
ME 252	Fundamentals of Design	2	1	-	3
CE 222	Structural Design & Drawing-1	3	1	-	4
CE 223	Fluid Mechanics-2	3	-	-	3
CE 224	Geotechnical Engineering -1	3	-	-	3
CE 225	Water Resources Engineering-1	3	-	-	3
CE 226	Surveying Lab-2	-	-	2	1
CE 227	Project Based Lab-1	-	-	2	1
CE 228	Fluid Mechanics Lab -2	-	-	2	1
Total Hours =25		17	2	6	22
Total Credits (Cumulative)					91
Additional Subject: - National Cadet Corps (NCC)					
NCC 252	National Cadet Corps IV	2	-	1	3
Total Credits (Cumulative)					14

FIFTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
ME 351	Engineering Management	3	-	-	3
CE 311	Water Resources Engineering-2	3	1	-	4
CE 312	Environmental Engineering-1	3	-	-	3
CE 313	Transportation Engineering-1	3	-	-	3
CE 314	Geotechnical Engineering-2	3	-	-	3
	Programme Elective-1(A)	3	-	-	3
CE 315	Geotechnical Engineering Lab-1	-	-	2	1
CE 316	Structural Engineering Lab	-	-	2	1
CE 317	Civil Engineering Materials Lab	-	-	2	1
CE 318	Internship / Industrial Training	-	-	2	1
Total Hours =27		18	1	8	23
Total Credits (Cumulative)					114
Additional Subject: - National Cadet Corps (NCC)					
NCC 351	National Cadet Corps V	1	5	1	7
Total Credits (Cumulative)					21

SIXTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
CS 352	Data Structures and Algorithm	3	1	-	4
CE 321	Structural Design & Drawing-2	3	1	-	4
CE 322	Environmental Engineering-2	3	-	-	3
CE 323	Transportation Engineering-2	3	-	-	3
	Programme Elective-2(A)	3	-	-	3
CE 324	Environmental Engineering Lab	-	-	2	1
CE 325	Geotechnical Engineering Lab -2	-	-	2	1
CE 326	Transportation Engineering Lab	-	-	2	1
CE 327	Project-1			4	2
Total Hours =27		15	2	10	22
Total Credits (Cumulative)					136
Additional Subject: - National Cadet Corps (NCC)					
NCC 352	National Cadet Corps VI	2	-	1	3
Total Credits (Cumulative)					24

SEVENTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
HUM451	Engineering Economics and IPR	3	-	-	3
CE 411	Project Costing and Construction Management	3	-	-	3
	Programme Elective-3 (A)	3	-	-	3
	Programme Elective-4 (A)	3	-	-	3
	Open Elective-1(C)	3	-	-	3
CE 412	Computational Lab	-	-	2	1
CE 413	Project Based Lab - 2	-	-	4	2
CE 414	Industrial / Field Training	-	-	2	1
Total Hours =23		15	-	8	19
Total Credits (Cumulative)					155

EIGHTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
	Programme Elective-5 (A)	3	-	-	3
	Programme Elective-6 (A)	3	-	-	3
CE 421 / CE 422	Project-2 / Internship	-	-	16	8
CE 423	General Proficiency	-	-	-	1
Total Hours =22		6	-	16	15
Total Credits (Cumulative)					170

LIST OF PROGRAMME ELECTIVES (GROUP A)**For 3rd Year**

CE 351	Theory of Structures
CE 352	Concrete Technology
CE 353	Pre-stressed Concrete
CE 355	Ground Water Hydrology
CE 356	Water Resources Systems
CE 357	Highway Geometric Design
CE 358	Road Safety Audit
CE 359	Noise Pollution & Its Control
CE 360	Open Channel Hydraulics
CE 361	Geotechnical Investigations for Civil Engineering Structures

For 4th Year

CE 451	GPS Surveying and its Applications
CE 452	Digital Processing of Remotely Sensed Data
CE 453	Remote Sensing and GIS
CE 454	Digital Mapping and Cartography
CE 455	Advanced Structural Analysis
CE 456	Advanced RCC Design
CE 457	Design of Steel Concrete Composite Structures
CE 458	Bridge Design
CE 459	Earthquake Resistant Design of Structures
CE 460	Finite Element Method
CE 461	Hydro Power Engineering
CE 462	Hydraulic Structures
CE 463	Analysis & Design of Piping System
CE 464	Sediment Transport Engineering
CE 465	Computational Fluid Dynamics
CE 466	Fluid Measurement Systems
CE 467	Watershed Management
CE 468	Flood Measurement and Management
CE 469	Advanced Technologies in Transport Infrastructure
CE 470	Road Safety Engineering
CE 471	Intelligent Transport Systems
CE 472	Analysis and Design of Pavement Structures
CE 473	Traffic Engineering and Management
CE 474	Environmental Impact Assessment and Legislation
CE 475	Sustainable Development and Global Environmental Issues
CE 476	Hazardous Waste Management & Risk Analysis

CE 477	Industrial Waste Treatment and Disposal
CE 478	Solid Waste Management
CE 479	Ground Improvement Techniques
CE 480	Reinforced Earth and Geo-synthetics Engineering
CE 481	Modern Foundations
CE 482	Soil Dynamics & Machine Foundation
CE 483	Traffic Flow Theory
CE 484	Highway Maintenance Management System
CE 485	Advanced Treatment Methods
CE 486	Air Pollution and Control
CE 487	Environmental Quality Monitoring
CE 488	Global Warming and Climate Change