

DEPARTMENT OF CIVIL ENGINEERING, MANIT, BHOPAL
PROPOSED SCHEME FOR BTECH (CIVIL ENGINEERING)
(Revised April 2020)

Third Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
MTH1301	Mathematics-3	3	1	-	4
HUM1302	Fundamental of Entrepreneurship	3	1	-	4
CE1303	Surveying	3	1	-	4
CE1304	Structural Analysis-1	3	1	-	4
CE1305	Fluid Mechanics-1	3	1	-	4
CE1306	Engineering Geology Lab	-	-	2	1
CE1307	Fluid Mechanics Lab	-	-	2	1
CE1308	Project Based Study of Applied Geology	-	2	-	2
Total Hours = 26		15	7	4	24
Total Credits (Cumulative)					69

Fourth Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
CE1401	Computational Geodesy	3	1	-	4
CE1402	Fundamental of Design Methods	3	1	-	4
CE1403	Geotechnical Engineering -1	3	1	-	4
CE1404	Fluid Mechanics-2	3	1	-	4
CE1405	Structural Design & Drawing-1 (Concrete Structures)	3	1	-	4
CE1406	Geotechnical Engineering Lab	-	-	2	1
CE1407	Surveying Lab	-	-	3	1
CE1408	Project Based Building Planning and Drawing Studio	-	2	-	2
Total Hours = 27		15	7	5	24
Total Credits (Cumulative)					93

Fifth Semester

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
ME1501	Engineering Management	3	1	-	4
ARC1502	Construction Planning and Management	3	1	-	4
CE1503	Structural Design & Drawing-2 (Steel Structures)	3	1	-	4
CE1504	Geotechnical Engineering -2	3	1	-	4
CE1505	Water Resources Engineering-1	3	1	-	4
CE1506	Computational Lab-1	-	-	2	1
CE1507	Civil Engineering Materials Lab	-	-	2	1
CE1508	Project Based Structural Analysis & Design Studio	-	2	-	2
CE1509	Internship/Training	-	2	-	1
Total Hours = 28		15	9	4	25
Total Credits (Cumulative)					118

Sixth Semester:

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
CS1601	Data Structure	3	1	-	4
CE1602	Project-1	-	-	4	2
CE1603	Transportation Engineering-1	3	1	-	4
CE1604	Water Resources Engineering-2	3	1	-	4
CE1605	Environmental Engineering-1	3	1	-	4
CE1606	Department Elective-1(A)	3	1	-	4
CE1607	Transportation Engineering Lab	-	-	2	1
CE1608	Computational Lab-2	-	-	2	1
Total Hours = 28		15	5	8	24
Total Credits (Cumulative)					142

Seventh Semester:

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
HUM1701	Engineering Economics& IPR	3	1		4
CE1702	Project-2 Phase-1	-	-	2	1
	Department Elective -2(A)	3	1	-	4
CE1703	Transportation Engineering-2	3	-	-	3
CE1704	Environmental Engineering-2	3	-	-	3
	Open Elective-1(C)	3	-	-	3
CE1705	Environmental Engineering Lab	-	-	2	1
CE1706	Internship/Training	-	2	-	1
Total Hours = 23		15	4	4	20
Total Credits (Cumulative)					162

Eighth Semester:

Course Number	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
CE1801	Project-2 Phase-2	-	-	4	2
	Department Elective-3 (A)	3	-	-	3
	Department Elective-4 (A)	3	-	-	3
	Department Elective-5 (A)	3	-	-	3
	Department Elective-6 (A)	3	-	-	3
	Department Elective-7(A)	3	-	-	3
CE1802	General Proficiency	-	-	2	1
Total Hours = 21		15	-	6	18
Total Credits (Cumulative)					180

LIST OF ELECTIVES

Group A Department Electives

CE501 GPS Surveying and its Applications
CE502 Digital Processing of Remotely Sensed Data
CE503 Remote Sensing and GIS
CE504 Digital Mapping And Cartography
CE505 Pre-stressed Concrete
CE506 Concrete Technology
CE507 Advanced Structural Analysis
CE508 Design of Steel Concrete Composite Structures
CE509 Bridge Design
CE510 Earthquake Resistant Design of Structures
CE511 Finite Element Method
CE512 Ground Water Hydrology
CE513 Open Channel Hydraulics
CE514 Hydro Power Engineering
CE515 Hydraulic Structures
CE516 Analysis & Design of Piping System
CE517 Sediment Transport Engineering
CE518 Computational Fluid Dynamics
CE519 Fluid Measurement Systems
CE520 Water Resources Systems
CE521 Watershed Management
CE522 Flood Measurement and Management
CE523 Geotechnical Investigations for Civil Engineering Structures
CE524 Modern Foundations
CE525 Soil Dynamics & Machine Foundation
CE526 Ground Improvement Techniques
CE527 Reinforced Earth and Geo-synthetics Engineering
CE528 Advanced Technologies in Transport Infrastructure
CE529 Highway Geometric Design
CE530 Road Safety Engineering
CE531 Intelligent Transport Systems
CE532 Analysis and Design of Pavement Structures
CE533 Traffic Engineering and Management
CE534 Road Safety Audit
CE535 Environmental Impact Assessment
CE536 Environmental Legislation
CE537 Sustainable Development and Global Environmental Issues
CE538 Hazardous Waste Management
CE539 Industrial Waste Treatment

Group C Open Electives (for other departments)

CE701 Road Safety Engineering

CE702 Environmental Impact Assessment

CE703 Computational Fluid Dynamics

CE704 Remote Sensing and GIS

CE705 Finite Element Method