



Maulana Azad

NATIONAL INSTITUTE OF TECHNOLOGY, Bhopal-462003

DEPARTMENT OF CHEMICAL ENGINEERING

M. Tech. in Chemical Engineering

SCHEME OF STUDY (Revised April 2020)

First Semester

CourseNo.	Subject	Scheme of Studies Periods per week			Total Credits
		L	T	P	
CH 101	Optimization Techniques	3	1	-	4
CH 102	Advance Transport Phenomena	3	1	-	4
CH 103	Advance in Chemical Reaction Engineering	3	1	-	4
CH 104	Advanced Separation Technology	3	1	-	4
	Elective 1(A)	3	1	-	4
	Elective 2(B)	3	1	-	4
CH 105	Advance Chemical Engg. Lab.	-	-	2	1
CH 106	Seminar-1	-	-	2	1
CH 107	NPTEL/MOOC (Communication skill)	2	-	-	2
Total Hours 30		Total Credit			28
Total Credits (Cumulative) 28					

Second Semester

CourseNo.	Subject	Scheme of Studies Periods per week			Total Credits
		L	T	P	
CH 201	Advanced Mathematical Techniques	3	1	-	4
CH 202	Advance Heat & Mass transfer	3	1	-	4
CH 203	Advanced Thermodynamics in Chemical Engg.	3	1	-	4
	Elective 3(A)	3	1	-	4
	Elective 4(A)	3	1	-	4
	Elective 5(C)	3	1	-	4
CH 204	Software Lab	-	-	2	1
CH 205	Research Methodology, Technical Report and Paper Writing	-	2	-	2
CH 206	Seminar-2	-	-	2	1
Total Hours 30		Total Credit			28
Total Credits (Cumulative) 56					

Third Semester

CourseNo.	Subject	Scheme of Studies Periods per week			Total Credits
		L	T	P	
CH 301	Dissertation Phase-1	-	-	24	12
Total Hours 24 Total Credits (Cumulative) 68		Total Credit			12

Fourth Semester

CourseNo.	Subject	Scheme of Studies Periods per week			Total Credits
		L	T	P	
CH 401	Dissertation Phase-2	-	-	24	12
Total Hours 24 Total Credits (Cumulative) 80		Total Credit			12

List of ELECTIVES

Group –A	CH-501 Polymer Science & Technology CH-502 Nano Technology CH-503 Advanced Oil and Paint Technolgy CH-504 Pinch Technology CH-505 Advanced Fluid Dynamics CH-506 Advanced Process Dynamics and Control CH-507 Petroleum Engineering & Technology CH-508 Safety & Hazard Management in Chemical Industries CH-509 Industrial Catalysis CH-510 Air pollution and Control CH-511 Advanced Environmental Biotechnology CH-512 Corrosion Science & Engineering CH-513 Solid Waste Management CH-514 Renewable Energy Engineering CH-515 Waste Water Treatment
Group-B	CH-601 Bioprocess Technology CH-602 Bio-Energy Engineering CH-603 Advanced Materials Characterization CH-604 Ore & Mineral Processing CH-605 Food Processing & Technology CH-606 Textile Technology CH-607 Advanced Analytical Techniques CH-608 Micro-Scale Energy Transport CH-609 Multiphase Modelling CH-610 Paper and Pulp Technology CH-611 Trends in Healthcare and Technology CH-612 Membrane Science & Technolgy CH-613 Air pollution and Control CH-614 Advanced Environmental Biotechnology CH-615 Corrosion Science & Engineering CH-616 Solid Waste Management CH-617 Renewable Energy Engineering CH-618 Waste Water Treatment
Group-C	CH-701 Air pollution and Control CH-702 Advanced Environmental Biotechnology CH-703 Corrosion Science & Engineering CH-704 Solid Waste Management CH-705 Renewable Energy Engineering CH-706 Waste Water Treatment