

COURSE SCHEME  
EXAMINATION SCHEME  
ABSORPTION SCHEME  
&  
SYLLABUS

Of

First, Second, Third & Fourth Semester  
Choice Base Credit System (CBCS)

Of

Master of Technology (M.Tech)

In

CHEMICAL ENGINEERING

*Of*

PRIYADARSHINI COLLEGE OF  
ENGINEERING, NAGPUR

**PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR**  
**FIRST SEMESTER M.TECH (C.B.C.S.) (CHEMICAL ENGINEERING)**

Sr. No.	Code (Board) Theo./Pract	Subject	Workload				Credit				MARKS				Total Marks
			L	P	T	Total	L	P	T	Total	Theory		Practical		
											Sessional	University	Sessional	University	
1.	23PCH 101T	Modeling & Simulation in Chemical Engineering	4	-	-	4	4	-	-	4	40	60	-	-	100
	23PCH 101P	Modeling & Simulation of Chemical Processes	-	4	-	4	-	2	-	2	-	-	100	100	200
2.	23PCH 102T	Advanced Transport Phenomena	4	-	-	4	4	-	-	4	40	60	-	-	100
3.	23PCH 103T	Advanced Reactor Design	4	-	-	4	4	-	-	4	40	60	-	-	100
4.		<b>Elective-I (Core)</b>	4	-	-	4	4	-	-	4	40	60	-	-	100
4.1	23PCH 111T	Process Design, Integration and Intensification	-	-	-	-	-	-	-	-	-	-	-	-	-
4.2	23PCH 112T	Bioprocess Engineering	-	-	-	-	-	-	-	-	-	-	-	-	-
4.3	23PCH 113T	Fluidization Engineering	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4	23PCH 114T	Industrial Waste Management	-	-	-	-	-	-	-	-	-	-	-	-	-
5.		<b>Elective-II (Open)</b>	4	-	-	4	4	-	-	4	40	60	-	-	100
5.1	23PCH 121T	Advanced food processing Engineering	-	-	-	-	-	-	-	-	-	-	-	-	-
5.2	23PCH 122T	Modern Chemical Instrumentation	-	-	-	-	-	-	-	-	-	-	-	-	-
5.3	23PCH 123T	Corporate Social	-	-	-	-	-	-	-	-	-	-	-	-	-

		Responsibility													
<b>Total</b>			<b>20</b>	<b>4</b>	<b>-</b>	<b>24</b>	<b>20</b>	<b>2</b>	<b>-</b>	<b>22</b>	<b>200</b>	<b>300</b>	<b>100</b>	<b>100</b>	<b>700</b>

**PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR**

**SECOND SEMESTER M.TECH (C.B.C.S.) (CHEMICAL ENGINEERING)**

Sr. No.	Code (Board) Theo./Pract	Subject	Workload				Credit				MARKS				Total Marks
			L	P	T	Total	L	P	T	Total	Theory		Practical		
											Sessional	University	Sessional	University	
1.	23PCH 201T	Advanced Separation Processes	4	-	-	4	4	-	-	4	40	60	-	-	100

2.	23PCH 202T	Advanced Process Dynamics & Control	4	-	-	4	4	-	-	4	40	60	-	-	100
3.	23PCH 203T	Advanced Biochemical Engineering	4	-	-	4	4	-	-	4	40	60	-	-	100
4.		<b>Elective-III</b>	4	-	-	4	4	-	-	4	40	60	-	-	100
4.1	23PCH 231T	Advanced Petroleum Refining	-	-	-	-	-	-	-	-	-	-	-	-	-
4.2	23PCH 232T	Nanotechnology	-	-	-	-	-	-	-	-	-	-	-	-	-
4.3	23PCH 233T	Multiphase Flow	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4	23PCH 234T	Fuel Cell Technology	-	-	-	-	-	-	-	-	-	-	-	-	-
5.	23PCH 205T	Research Methodology	4	-	-	4	4	-	-	4	40	60	-	-	100
<b>Total</b>			<b>20</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>20</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>200</b>	<b>300</b>	<b>-</b>	<b>-</b>	<b>500</b>

**PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR**

**THIRD SEMESTER M.TECH (C.B.C.S.) (CHEMICAL ENGINEERING)**

Sr. No.	Code (Board) Theo./Pract	Subject	Workload				Credit				MARKS				Total Marks
			L	P	T	Total	L	P	T	Total	Theory		Practical		
											Sessional	University	Sessional	University	
1	23PCH 301T	Project Planning and Management	4	-	-	4	4	-	-	4	40	60	-	-	100
2	23PCH 302P	*Project Seminar	-	3	-	3	-	8	-	8	-	-	100	100	200
3		<b>Elective IV (Open)</b>	4	-	-	4	4	-	-	4	40	60	-	-	100
3.1	23PCH 341T	Waste to Energy	-	-	-	-	-	-	-	-	-	-	-	-	-
3.2	23PCH 342T	Energy Conservation & Planning	-	-	-	-	-	-	-	-	-	-	-	-	-
3.3	23PCH 343T	Green & Cleaner Technology	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>			<b>8</b>	<b>3</b>	<b>-</b>	<b>11</b>	<b>8</b>	<b>8</b>	<b>-</b>	<b>16</b>	<b>80</b>	<b>120</b>	<b>100</b>	<b>100</b>	<b>400</b>

\*For Work Load: 2 Hours/week/faculty

**FOURTH SEMESTER M.TECH (C.B.C.S.) (CHEMICAL ENGINEERING)**

Sr. No.	Code (Board) Theo./Pract	Subject	Workload				Credit				MARKS				Total Marks
			L	P	T	Total	L	P	T	Total	Theory		Practical		
											Sessional	University	Sessional	University	
1.	23PCH 401P	*Project	-	6	-	6	-	10	-	16	-	-	200	200	400
Total			-	6	-	6	-	10	-	16	-	-	200	200	400

\* For Work Load: 3 Hours/week/faculty