

Curriculum and Syllabus
for
M. Tech in Chemical Engineering at NIT Agartala



Department of Chemical Engineering
National Institute of Technology
Agartala-799055
India

Version – August, 2021

Curriculum for M.Tech in Chemical Engineering at NIT Agartala

M.Tech (Chemical Engineering) – Semester I

Subject Code	Subject Name	L	T	P	S	H	Credit	Marks
Basic core (4x1)								
PCH01BXX	Advanced Thermodynamics	03	01	x	x	04	04	100
Core (4x2)								
PCH01CXX	Advanced Transport Phenomena	03	01	x	x	04	04	100
PCH01CXX	Advanced Numerical Methods in Chemical Engineering	03	01	x	x	04	04	100
Elective[any two (4x2)]								
PCH01EXX	Elective/ Open Elective 1	04	x	x	x	04	04	100
PCH01EXX	Elective/ Open Elective 2	04	x	x	x	04	04	100
Practical								
PCH01PXX	Analytical Instrument Laboratory	x	x	03	x	03	02	100
PCH01PXX	Computer Aided Numerical Laboratory	x	x	03	x	03	02	100
PCH01PXX	Seminar				02	02	01	100
Total		17	03	06	02	28	25	800

M.Tech (Chemical Engineering) – Semester II

Subject Code	Subject Name	L	T	P	S	H	Credit	Marks
Basic core (4x1)								
PCH02BXX	Advanced Reactor Design and Analysis	03	01	x	x	04	04	100
Core (4x1)								
PCH02CXX	Advanced Separation Processes	03	01	x	x	04	04	100
Elective[any two (4x2)]								
PCH02EXX	Elective/ Open Elective 3	04	x	x	x	04	04	100
PCH02EXX	Elective/ Open Elective 4	04	x	x	x	04	04	100
Practical								
PCH02PXX	Computer Aided Process Equipment Design Laboratory	x	x	03	x	03	02	100
PCH02PXX	M.Tech Laboratory	x	x	03	x	03	02	100
PCH02PXX	Comprehensive Viva voice	x	x	x	01	x	02	100
PCH02PXX	Project Preliminary	x	x	x	06	06	03	100
Total		14	02	06	07	28	25	800

M.Tech (Chemical Engineering) – Semester III

Subject Code	Subject Name	L	T	P	S	H	Credit	Marks
PCH03PXX	Project & Thesis (Part- 1)	x	x	x	40	40	10	100
Total		x	x	x	40	40	10	100

M.Tech (Chemical Engineering) – Semester IV

Subject Code	Subject Name	L	T	P	S	H	Credit	Marks
PCH04PXX	Project & Thesis (Part- 2)	x	x	x	40	40	20	300
Total		x	x	x	40	40	20	300

Note: L-Lecture, T-Tutorial, P-Practical, S-Seasonal, H-Class Hour

Suag
24/8/2021

Bandyopadhyay
24.08.21

Pan
24/8/2021

Sanyal
24/8/21

Alam
24.08.2021

Distribution of credits semester wise

S. No	Semester	L	T	P	S	H	Credit	Marks
01	Semester I	17	03	06	02	28	25	800
02	Semester II	14	02	06	07	28	25	800
03	Semester III	x	x	x	40	40	10	100
04	Semester IV	x	x	x	40	40	20	300
Total		31	05	12	89	136	80	2000

Electives

Subject Code	Subject Name	L	T	P	S	H	Credit
PCHXEYY	Advanced Process Modeling, Simulation and Optimization	04	x	x	x	04	04
PCHXEYY	Modeling and Simulation of Bioprocess Engineering	04	x	x	x	04	04
PCHXEYY	Petroleum and Petrochemical Engineering	04	x	x	x	04	04
PCHXEYY	Computational Fluid Dynamics	04	x	x	x	04	04
PCHXEYY	Polymer Processing Engineering	04	x	x	x	04	04
PCHXEYY	Advanced Instrument Analysis in Chemical Engineering	04	x	x	x	04	04
PCHXEYY	Entrepreneurship and Management	04	x	x	x	04	04
PCHXEYY	Industrial Pollution Control	04	x	x	x	04	04
PCHXEYY	Molecular Cell Biology	04	x	x	x	04	04
PCHXEYY	Advanced Environmental Biotechnology	04	x	x	x	04	04
PCHXEYY	Chemical Process Safety	04	x	x	x	04	04
PCHXEYY	Advanced Process Control	04	x	x	x	04	04
PCHXEYY	Systems Biology	04	x	x	x	04	04
PCHXEYY	Bioenergy Engineering	04	x	x	x	04	04
PCHXEYY	Project Engineering and Management	04	x	x	x	04	04

Open Electives:

Open Elective (At least 40 hours or 12 weeks courses from open learning sources/PG courses offered by other Departments of NIT Agartala)

Suag
24/8/2021

Bandyopadhyay
24.08.21

Prasanna
24/8/2021

Sayan
24/8/21

Alaiah
24.08.2021