



School of Engineering

Department of Biotechnology and Chemical Engineering

Program: B. Tech. Chemical Engineering (2023-Onwards)

Total Credit: 160

	Third Semester						Fourth Semester					
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C	
MEE2001	Engineering Economics	3	0	0	3	MAS2001	Statistics & Probability	3	0	0	3	
MBB21xx	Management of Technology	3	0	0	3	CHE2201	Reaction Engineering	3	1	0	4	
CHE2101	Process Calculations	3	1	0	4	CHE2202	Heat and Mass Transfer	3	1	0	4	
CHE2102	Fluid Mechanics	3	1	0	4	XXX222X	Flexi Core 2	3	0/1	2/0	4	
CHE2103	Chemical Engineering Thermodynamics	3	1	0	4	CHE224X	Program Elective I	3	0	0	3	
XXX212X	Flexi Core 1	3	1	0	4	XXX00XX	Open Elective I	3	0	0	3	
CHE2130	Fluid Mechanics Lab	0	0	3	1	CHE2230	Reaction Engineering Lab	0	0	3	1	
CHE2131 / XXX213X	Simulation Lab 1 / Data Structures and Algorithms Lab	0	0	3	1	CHE2231	Thermal Processes Lab	0	0	3	1	
CHE2170	Project-based Learning 1	0	0	2	1	CHE2270	Project-based Learning 2	0	0	2	1	
		18	4	8	25			18	2/3	10/8	24	
	Total Contact Hours (L+T+P)	30					Total Contact Hours (L+T+P)	30/29				
	Fifth Semester						Sixth Semester					
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C	
CHE3101	Process Plant Design	3	1	0	4	CHE32XX	Process Dynamics and Control	3	1	0	4	
CHE3102	Design of Separation Processes	3	1	0	4	CHE32XX	Program Elective 4	3	0	0	3	
XXX312X	Flexi Core 3	3	1	0	4	CHE32XX	Program Elective 5	3	0	0	3	
CHE314X	Program Elective 2	3	0	0	3	CHE32XX	Program Elective 6	3	0	0	3	
CHE314X	Program Elective 3	3	0	0	3	CHE00XX	Open Elective 3	3	0	0	3	
XXX00XX	Open Elective 2	3	0	0	3	CHE32XX	Professional Practice	0	0	2	1	
CHE3130	Separation Processes lab	0	0	3	1	CHE323X	Process Dynamics and Control Lab	0	0	4	2	
CHE3131	Simulation Lab 2/Object Oriented Programming Lab	0	0	2	1	CHE3270	Project-based Learning 4	0	0	6	3	
CHE3170	Project-based Learning 3	0	0	2	1							
		18	3	7	24			15	1	12	22	
	Total Contact Hours (L+T+P)	28					Total Contact Hours (L+T+P)	28				



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Seventh Semester						Eighth Semester					
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C
CHE41XX	Program Elective 7	3	0	0	3	CHE4270	Major Project	0	0	24	12
CHE41XX	Program Elective 8	3	0	0	3						
CHE00XX	Open Elective 4	3	0	0	3						
CHE00XX	Open Elective 5	3	0	0	3						
CHE417X	Internship (Industry or Research)	0	0	2	1						
		12	0	2	13			0	0	24	12
	Total Contact Hours (L+T+P)	14						24			

Flexi Core

Flexi Core 1	Flexi Core 2	Flexi Core 3
CHE2120 Solid-Fluid Operations XXX212X Data Structures and Algorithms	CHE2220 Process Modeling and Simulation XXX222X Relational Database Management Systems	CHE3120 Process Safety Analysis XXX31XX Object-Oriented Programming

Program Electives			
IV	V	VI	VII
PE1 <ul style="list-style-type: none"> CHE2240: Environmental Systems Engineering CHE2241: Bioprocess Engineering 	PE2 <ul style="list-style-type: none"> CHE3140: Process Optimization CHE3141: Process Economics and Management PE3 <ul style="list-style-type: none"> CHE3142: Process Intensification CHE3143: Advanced Separation Technologies 	Example - PE 4 <ul style="list-style-type: none"> CHE3240: Course 1 CHE3241: Course 2 Example - PE5 <ul style="list-style-type: none"> CHE3242: Course 1 CHE3243: Course 2 Example - PE6 <ul style="list-style-type: none"> CHE3244: Course 1 CHE3245: Course 2 	Example - PE 7 <ul style="list-style-type: none"> CHE4140: Course 1 CHE4141: Course 2 Example - PE8 <ul style="list-style-type: none"> CHE4142: Course 1 CHE4143: Course 2

MA	ME	MB	D	F	O	P
Mathematics Dept	Mechanical Engr Dept	Management Dept	Department Core	Dept Flexi Core	Open Elective	Program Elective

Legend: