



CURRICULUM OF 2nd to 4th YEAR OF THE UNDERGRADUATE ENGINEERING DEGREE PROGRAMME
SECOND YEAR : FIRST SEMESTER

Subject Code	Subject Name	Category	Type Basic / Honours	Contact L – T – P	Credit	Marks
FET/BS/B/Math/T/211	Mathematics-III	BS	B	2 – 1 – 0	3	100
Che/PC/B/Mech/T/212	Engineering Thermodynamics	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/213	Mechanics of Fluid	PC	B	3 – 0 – 0	3	100
Che/BS/B/Chem/T/214	Physical Chemistry	BS	B	3 – 0 – 0	3	100
Che/PC/B/Mech/T/215	Strength of Materials	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/216	Chemical Process Principles	PC	B	3 – 0 – 0	3	100
Che/BS/B/Chem/S/211	Physical Chemistry Laboratory	BS	B	0 – 0 – 4	2	100
Che/ES/B/Mech/S/212	Workshop Practice – XII	ES	B	0 – 0 – 4	2	100
Che/PC/B/Mech/S/213	Computer Aided Drafting	PC	B	0 – 0 – 3	1.5	100
TOTAL				29	23.5	900

SECOND YEAR : SECOND SEMESTER

Subject Code	Subject Name	Category	Type Basic / Honours	Contact L – T – P	Credit	Marks
Che/PC/B/T/221	Numerical Analysis for Chemical Engineers	PC	B	3 – 0 – 0	3	100
Che/PC/B/Met/T/222	Material Science & Engineering	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/223	Chemical Engineering Thermodynamics	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/224	Introduction to Transport Phenomena	PC	B	4 – 0 – 0	4	100
Che/PC/B/T/225	Mechanical Operations	PC	B	3 – 0 – 0	3	100
Che/PC/B/Mech/T/226	Machine Design	PC	B	3 – 0 – 0	3	100
Che/PC/B/Mech/S/221	Machine Drawing (Computer terminal mode)	PC	B	0 – 0 – 4	2	100
Che/ES/B/Elec/S/222	Electrical Engineering Laboratory	ES	B	0 – 0 – 3	1.5	100
TOTAL				26	22.5	800



THIRD YEAR : FIRST SEMESTER

Subject Code	Subject Name	Category	Type Basic / Honours	Contact L – T – P	Credit	Marks
Che/PC/B/T/311	Separation Processes - I	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/312	Chemical Reaction Engineering - I	PC	B	4 – 0 – 0	4	100
Che/PC/B/T/313	Chemical Technology - I	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/314	Process Heat Transfer	PC	B	3 – 0 – 0	3	100
Che/PC/H/T/315	Energy Engineering	PC	H	3 – 0 – 0	3	100
Che/OE/B/FET/T/316	Open Elective	OE	B	3 – 0 – 0	3	100
Che/PC/B/S/311	Momentum Transfer & Mechanical Operation Laboratory	PC	B	0 – 0 – 4	2	100
Che/PC/B/S/312	Computer Applications in Chemical Engineering Laboratory	PC	B	0 – 0 – 4	2	100
	TOTAL			27	23	800

THIRD YEAR : SECOND SEMESTER

Subject Code	Subject Name	Category	Type Basic / Honours	Contact L – T – P	Credit	Marks
Che/PC/B/Elec/T/321	Principles of Measurements & Instrumentation	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/322	Process Dynamics & Control	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/323	Separation Processes - II	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/324	Chemical Technology - II	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/325	Mathematical Modeling in Chemical Engg.	PC	B	3 – 0 – 0	3	100
Che/PC/B/T/326	Chemical Reaction Engineering - II	PC	B	3 – 0 – 0	3	100
Che/PC/B/S/321	Reaction Engineering & Thermodynamics Lab.	PC	B	0 – 0 – 4	2	100
Che/PC/B/S/322	Energy Engineering Laboratory	PC	B	0 – 0 – 3	1.5	100
Che/PS/B/S/313	Chemical Engineering Project - I	PS	B	0 – 0 – 4	2	100
	TOTAL			29	23.5	900


FOURTH YEAR : FIRST SEMESTER

Subject Code	Subject Name	Category	Type Basic / Honours	Contact L – T – P	Credit	Marks
Che/PC/H/T/411	Separation Processes - III	PC	H	3-0-0	3	100
Che/PC/H/T/412	Optimization Methods in Chemical Engineering	PC	H	4-0-0	4	100
Che/PC/H/T/413	Industrial Pollution Control Engineering	PC	H	3-0-0	3	100
	Elective – I *	PE	B	3-0-0	3	100
Che/PS/B/S/411	Chemical Engineering Project – II	PS	B	0-0-4	2	100
Che/PC/B/S/412	Process Equipment Design & Drawing	PC	B	0-0-4	2	100
Che/PS/B/S/413	Seminar-I	PS	B	0-0-3	1.5	100
Che/PC/B/S/414	Process Instrumentation & Control Laboratory	PC	B	0-0-3	1.5	100
Che/PC/B/S/415	Chemical Process Simulation Laboratory	PC	B	0-0-3	1.5	100
	TOTAL			29	21.5	900

FOURTH YEAR : SECOND SEMESTER

Subject Code	Subject Name	Category	Type Basic / Honours	Contact L – T – P	Credit	Marks
Che/PC/H/T/421	Chemical Project Engineering & Economics	PC	H	4-0-0	4	100
Che/PC/H/T/422	Chemical Process Safety & Risk Management	PC	H	3-0-0	3	100
Che/HS/B/Mech/T/423	Industrial Management	HS	B	3-0-0	3	100
	Elective – II **	PE	B	3-0-0	3	100
Che/PC/B/S/421	Chemical Plant Design & Drawing	PC	B	0-0-3	1.5	100
Che/PC/B/S/422	Heat & Mass Transfer Laboratory	PC	B	0-0-4	2	100
Che/PS/B/S/423	Seminar - II	PS	B	0-0-4	2	100
Che/PS/B/S/424	General Viva-voce	PS	B		2	200
	TOTAL			23	20.5	900

Chemical Eng. Dept.,JU

FOURTH YEAR : FIRST SEMESTER : Elective – I *

Subject Code	Subject Name
Che/PE/B/T/414A	Interfacial Science and Engineering
Che/PE/B/T/414B	Multiphase Flow
Che/PE/B/T/414C	Applied Statistics for Chemical Engineers
Che/PE/B/T/414D	Chemical Process Synthesis
Che/PE/B/T/414E	Principles of Micro-fluidics
Che/PE/B/T/414F	Introduction to Nano-science &Engineering

FOURTH YEAR : SECOND SEMESTER : Elective – II **

Subject Code	Subject Name
Che/PE/B/T/424A	High Polymer Technology
Che/PE/B/T/424B	Petroleum Refinery Engineering & Petrochemicals
Che/PE/B/T/424C	Operations Research
Che/PE/B/T/424D	Bioenergetics & Bioprocess Engineering
Che/PE/B/T/424E	Computational Fluid Dynamics
Che/PE/B/T/424F	Environmental Biotechnology
Che/PE/B/T/424G	Modern Energy Engineering & Energy Management