

Master of Chemical Engineering

FIRST SEMESTER

Theoretical Courses	Subjects		Periods/Weeks		Marks		Credit Points	
	Subject Code	Subject Name	Lecture	Sessional	Examination	Sessional		
Departmental / Specialization Basket								
	Paper-I	PG / ChE / T / 111A	Advanced Chemical Engineering Thermodynamics	3		100		3
		PG / ChE / T / 111B	Advanced Chemical Engineering Kinetics and reactor Design					
		PG / ChE / T / 111C	Process Dynamics and Control					
Paper-II	PG / ChE / T / 112A	Advanced Heat Transfer	3		100		3	
	PG / ChE / T / 112B	Advanced Mass Transfer						
	PG / ChE / T / 112C	Advanced Fluid Dynamics						
Paper-III	PG / ChE / T / 113A	Advanced Transport Phenomena	3		100		3	
	PG / ChE / T / 113B	Numerical Methods for Chemical Engineering						
<p>Note: The students have to select 3 subjects from the departmental/ specialization basket, i.e. one subject each from the list given in the baskets of Paper-I, Paper-II and Paper-III</p>								
Inter-Disciplinary Basket	Subject Code	Subject Name	Lecture	Sessional	Examination	Sessional		
Paper-IV		From the inter-disciplinary basket of ME, IE, CE, EE, ETCE, MetE Depts	3		100		3	
Paper-V	PG / ChE / T / 115A	Environmental Pollution Control	3		100		3	
	PG / ChE / T / 115B	Interfacial Science and Engineering						
		From the inter-disciplinary basket of ME, IE, CE, EE, ETCE, MetE Depts						
Paper-VI		From the inter-disciplinary basket of ME, IE, CE, EE, ETCE, MetE Depts	3		100		3	
<p>Note: The students have to select 3 subjects from the inter-departmental basket, i.e. one subject each from the list given in the baskets of Paper-IV, Paper-V and Paper-VI</p>								
Sessional Courses								
Sessional 1	PG / ChE / S / 111	Laboratory		4		100	3	
Sessional 2	PG / ChE / S / 112	Seminar		3		200 marks to be included in 2 nd semester		
			18	7	600	100	21	

Total Periods/Week = 25

Total Marks = 700

SECOND SEMESTER

Theoretical Courses	Subjects		Periods/Weeks		Marks		Credit Points
	Subject Code	Subject Name	Lecture	Sessional	Examination	Sessional	
Departmental / Specialization Basket							
Paper-VII	PG / ChE / T/ 127A	Modern Energy Engineering and Energy Management	3		100		3
	PG / ChE / T/ 127B	Pollution Control and Safety in Process industries					
	PG / ChE / T/ 127C	Petroleum Refinery Engineering and Petrochemicals					
Paper-VIII	PG / ChE / T/ 128A	Computational Fluid Dynamics	3		100		3
	PG / ChE / T/ 128B	Optimization Methods					
	PG / ChE / T/ 128C	Modeling and Simulation of Chemical Processes					
	PG / ChE / T/ 128D	Applied Statistics for Chemical Engineering					
Paper-IX	PG / ChE / T/ 129A	Biochemical Engineering	3		100		3
	PG / ChE / T/ 129B	Membrane Science and Engineering					
	PG / ChE / T/ 129C	High Polymer Engineering					

Note: The students have to select 3 subjects from the departmental/ specialization basket, i.e. one subject each from the list given in the baskets of Paper-VII, Paper-VIII and Paper-IX

Inter-Disciplinary Basket	Subject Code	Subject Name	Lecture	Sessional	Examination	Sessional	
Paper-X	PG / ChE / T/ 1210A	Bioenergetics and Bioprocess Engineering	3		100		3
		From the inter-disciplinary basket of ME, IE, CE, EE, ETCE, MetE Depts					

Note: The students have the freedom to choose one subject from the list under Paper-X.

Sessional Courses							
Sessional 1	PG / ChE / S / 121	Term Paper Leading to Thesis		3		100	3
Sessional 2	PG / ChE / S / 122	Seminar		3		200	6
			12	6	400	300	21

Total Periods/Week = 18

Total Marks = 700

THIRD and FOURTH SEMESTER

Courses							
1	PG / ChE / TH / 21	Thesis Work		16		300	12
2	PG / ChE / VV/ 22	Viva-Voce				100	
				16		400	12

Total Periods/Week = 16

Total Marks = 400