

SRIVENKATESWARAUNIVERSITYCOLLEGE OFENGINEERING: TIRUPATI-517 502
Department of Chemical Engineering-Scheme of Instruction-(CBCS) effective from the Academic Year 2023-2024

M.Tech(PG) Specialization: Chemical Engineering--I Semester

Category	Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
			Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
PCC-1	CH11C	Advanced Transport Phenomena	3	1	0	4	4	40	60	100
PCC-2	CH12C	Separation Processes	3	1	0	4	4	40	60	100
PCC-3	CH13C	Chemical Reactor Theory	3	1	0	4	4	40	60	100
PEC-I	CH14C	Programme Elective Course-I	3	0	0	3	3	40	60	100
PEC-II	CH15C	Programme Elective Course-II	3	0	0	3	3	40	60	100
PCC-ILab	CH16L	Computational Techniques Lab	0	0	3	3	1.5	40	60	100
PCC-IIILab	CH17L	Advanced Chemical Engg. Lab	0	0	3	3	1.5	40	60	100
MC		Research Methodology and IPR	3	0	0	3	3	40	60	100
		Total	18	03	06	27	24	320	480	800

Course Code	List of Programme Elective Course I	Course Code	List of Programme Elective Course II
1	Process Design and Synthesis	1	Industrial Pollution Control
2	Fluidization Engineering	2	Transport in porous media
3	Process Plant Simulation	3	Chemo-Informatics
4	Computational Fluid Dynamics	4	Advanced Control Systems

II Semester

Category	Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
			Lecture	Tutorial	Practical	Total		Internal Marks	End Sem Marks	Total
PCC-4	CH21C	Membrane Separations	3	1	0	4	4	40	60	100
PCC-5	CH22C	Optimization Theory and Practice	3	1	0	4	4	40	60	100
PEC-III	CH23C	Programme Elective Course-III	3	0	0	3	3	40	60	100
PEC-IV	CH24C	Programme Elective Course-IV	3	0	0	3	3	40	60	100
PCC-III Lab	CH25L	Steady State Simulation Lab	0	0	3	3	1.5	40	60	100
PCC-IV Lab	CH26L	Advanced Instrumentation Lab	0	0	3	3	1.5	40	60	100
MC		Industrial Safety	3	0	0	3	3	100	-	100
PCC		Mini Project with Seminar	0	0	4	4	2	100	-	100
Total			15	02	10	27	22	440	360	800

Course Code	List of Programme Electives-III	Course Code	List of Programme Electives IV
1	Modern Concepts in Catalysis & Surface Phenomenon	1	Phase Transitions in Process Equipment
2	Advanced Downstream Processing	2	Process Intensification
3	Process Synthesis and Analysis	3	Microflow chemistry & Process Technology
4	Micro and Nano Fluids	4	Process Plant Design & Flow sheeting Tools

Note: 1. Students are allowed to do Open Elective Course through online (MOOCS)/ NPTEL and can select the subjects that are not covered in the Curriculum and twelve (12) weeks in duration. However, the obtained pass certificates should be submitted at the last instruction day of the IIIrd semester coursework and the results will reflect in IIIrd semester Marks MEMO

III Semester

Category	Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
			Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
OEC	CH31C	Open Elective Course (MOOCs)	0	0	0	0	3	100	-	100
PCC	CH32C	Industrial/Research Internship (Min of 4 Weeks)	0	0	0	0	3	100	-	100
PCC	CH33D	Dissertation Work Phase-I	0	0	24	24	12	40 (guide)	60 (Internal committee)	100
Total			0	0	24	24	18	240	60	300

IV Semester

Category	Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
			Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
PCC	CSP41J	Dissertation Work Phase-II and Viva-Voce	0	0	20	20	16	40	60	100
Total			0	0	20	20	16	40	160	100

Semester	I	II	III	IV	Total
Credits	24	22	18	16	80