List of Programme (s)

Department : *Chemical Engineering*

Programme Name : *B.Tech.*

Academic Year : 2024-25

List of Programmes having Components of Field Project/Projects/Internships

Sr. No.	Course Code	Course Name	Academic Year
01.	CHUDPV1	Mini Project	2024-25
02.	CHUEPV1	Mini Project-II	2024-25
03.	CHUFPV1	Project	2024-25
04.	CH407PPC09	Vocational Training Viva cum Seminar	2024-25
05.	CH407PPC10	Minor Project	2024-25
06.	CH408PPC11	Major Project	2024-25
07.	CHPBPT1	Mini Project	2024-25
08.	CHPCPT1	Dissertation Stage-I	2024-25
09.	CHPDPT1	Dissertation Stage-II	2024-25

Scheme highlighting the Components of Projects/Internships

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SCHEME FOR EXAMINATION (Effective from Session 2023-24)

B. TECH. (FOUR YEAR) DEGREE COURSE, CHEMICAL ENGINEERING

SECOND YEAR, FOURTH SEMESTER (NEP)

S. No.	Subject Code	Subject Name	Periods			Evaluation Scheme			Credits
						Sessional			
	THEORY		L	T	P	CIA	SEA	TOTAL	
01.	CHUDTT1	Particle and Fluid Particle Operations	3	0	0	40	60	100	3
02.	CHUDTT2	Inorganic Chemical Technology	3	0	0	40	60	100	3
03.	CHUDTT3	Numerical Methods in Chemical Engineering	3	0	0	40	60	100	3
04.	CHUDTK1	Process Instrumentation	3	0	0	40	60	100	3
	CHUDTK2	Fluidization Engineering							
05.	CHUDTO1	Energy and Environment	3	0	0	40	60	100	3
	CEUDTO1	Remote Sensing & GIS							
	MEUDTO1	Introduction to Fluid Mechanics							
	IPUDTO1	Automobile Engineering							
	CSUDTO1	Introduction to Information Science							
	ITUDTO1	Computer Network							
	ITUDTO2	Fundamentals of Python Programming							
	ECUDTO1	Introduction to Electronic Devices & Circuits							
	ESUDTO1	Effective Technical Communication							
	PRACTICAL								
01.	CHUDLT1	Particle and Fluid Particle Operations Lab	0	0	2	25	25	50	1
02.	CHUDLT2	Numerical Methods in Chemical Engineering Lab	0	0	2	25	25	50	1
03.	CHUDPV1	Mini Project	0	0	4	50	50	100	2
		Total	15	0	8	300	400	700	19

CIA – Continuous Internal Assessment SEA – Semester End Assessment	Total Credits – 19 Total Marks – 700	Total Periods / Week - 23

CIA-Shall be two class test (CT) I &II each 15 marks, 05 marks for assignment, surprise test, quiz etc. and 05 marks attendance
CH-Chemical Engineering, CE-Civil Engineering, ME-Mechanical Engineering, IT-Information Technology
IP-Industrial and Mechanical Engineering, CSE-Computer Science & engineering,
EC-Electronics and Communication Engineering

BoS Held on 06-10-2023

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SCHEME FOR EXAMINATION (NEP 2020) (Effective from Session 2024-25)
B. TECH. (FOUR YEAR) DEGREE COURSE, CHEMICAL ENGINEERING
THIRD YEAR, FIFTH SEMESTER

S. No.	Subject Code	Subject Name	Periods			Evaluation Scheme			Credits
						Marks			
	Theory		L	T	P	CIA	SEA	Total	
01.	CHUETT1	Heat Transfer	3	1	0	40	60	100	4
02.	CHUETT2	Mass Transfer-I	3	1	0	40	60	100	4
03.	CHUETT3	Chemical Reaction Engineering-I	3	0	0	40	60	100	3
04.	CHUETK1	Petroleum Refinery Engineering	3	0	0	40	60	100	3
	CHUETK2	Organic Chemical Technology							
	CHUETK3	Fuel Combustion Energy Technology							
05.	CHUETK4	Process Equipment Design-I	3	0	0	40	60	100	3
	CHUETK5	Polymer Technology-I							
Practical									
01.	CHUELT1	Heat Transfer Lab	0	0	3	25	25	50	1.5
02.	CHUELT2	Chemical Reaction Engineering Lab	0	0	3	25	25	50	1.5
03.	CHUEPV1	Mini Project-II	0	0	4	25	25	50	2.0
		Total	15	2	10	275	375	650	22

CIA : Continuous Internal Assessment SEA : Semester End Assessment	Total Credits : 22 Total Marks : 650	Total Periods / Week 27
The CIA (Theory) will be comprised of two Class Tests (CT) worth 15 marks each, an assignment/surprise test/quiz worth 05 marks, and 05 marks for class attendance throughout the semester.		

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SCHEME FOR EXAMINATION (NEP 2020) (Effective from Session 2024-25)
B. TECH. (FOUR YEAR) DEGREE COURSE, CHEMICAL ENGINEERING
THIRD YEAR, SIXTH SEMESTER

S. No.	Subject Code	Subject Name	Periods			Evaluation Scheme (Marks)			Credits
	Theory		L	T	P	CIA	SEA	Total	
01.	CHUFTT1	Mass Transfer-II	3	0	0	40	60	100	3
02.	CHUFTT2	Chemical Reaction Engineering-II	3	0	0	40	60	100	3
03.	CHUFTT3	Process Dynamics and Control	3	1	0	40	60	100	4
04.	CHUFTK1	Process Equipment Design-II	3	0	0	40	60	100	3
	CHUFTK2	Polymer Technology-II							
	CHUFTK3	Project Engineering Economics and Management							
	CHUFTK4	MOOCS-I	-	-	-	-	-		
05.	CHUFTK5	Petrochemical Technology	3	0	0	40	60	100	3
	CHUFTK6	Waste To Energy							
	CHUFTK7	Optimization Techniques in Chemical Engineering							
	CHUFTK8	MOOCS-II	-	-	-	-	-		
06.	CHUFTO1	MOOCS-III	-	-	-	-	-	100	3
	Practical								
01.	CHUFLT1	Mass Transfer Lab	0	0	3	25	25	50	1.5
02.	CHUFLT2	Process Dynamics and Control Lab	0	0	3	25	25	50	1.5
03.	CHUFPV1	Project	0	0	6	25	25	50	2.0
		Total	15	1	12	275	375	650	24

CIA : Continuous Internal Assessment SEA : Semester End Assessment	Total Credits : 24 Total Marks : 650	Total Periods / Week 28

The CIA (Theory) will be comprised of two Class Tests (CT) worth 15 marks each, an assignment/surprise test/quiz worth 05 marks, and 05 marks for class attendance throughout the semester.

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SCHEME FOR EXAMINATION (Effective from Session 2023-24)

B.TECH. (FOUR YEAR) DEGREE COURSE, CHEMICAL ENGINEERING

FOURTH YEAR, SEVENTH SEMESTER (AICTE-NEW)

S. No.	Subject Code	Subject Name	Periods			Evaluation Scheme			Credits
						Sessional			
	THEORY		L	T	P	IA	ESE	TOTAL	
01.	CH407TPC14	Process Equipment Design-II	3	0	0	30	70	100	3
02.	CH407TPC15	Transport Phenomena	3	0	0	30	70	100	3
03.	CH407TPE4X	Professional Elective-IV	3	0	0	30	70	100	3
04.	CH407TPE5X	Professional Elective-V	3	0	0	30	70	100	3
05.	XX207TOEXX	Open Elective-II	3	0	0	30	70	100	3
	PRACTICAL								
01.	CH407PPC09	Vocational Training Viva cum Seminar	0	0	4	30	20	50	2
02.	CH407PPC10	Minor Project	0	0	6	30	20	50	3
		Total	15		10	210	390	600	20

IA – Internal Assessment
Total Marks – 600

ESE - End Semester Examination
Total Periods / Week – 25

Total Credits – 20

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SCHEME FOR EXAMINATION (Effective from Session 2023-24)

B.TECH. (FOUR YEAR) DEGREE COURSE, CHEMICAL ENGINEERING

FOURTH YEAR, EIGHTH SEMESTER (AICTE-NEW)

S. No.	Subject Code	Subject Name	Periods			Evaluation Scheme			Credits
						Sessional			
	THEORY		L	T	P	IA	ESE	TOTAL	
01.	CH408TPC16	Process Equipment Design-III	3	1	0	30	70	100	4
02.	CH408TPE6X	Professional Elective-VI	3	0	0	30	70	100	3
03.	XX208TOEXX	Open Elective-III	3	0	0	30	70	100	3
	PRACTICAL								
01.	CH408PPC11	Major Project	0	0	12	120	80	200	6
		Total	9	1	12	210	290	500	16

IA – Internal Assessment
Total Marks – 500

ESE - End Semester Examination
Total Periods / Week - 22

Total Credits – 16

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M.Tech. II-Semester

Sl.	Course Type/ Code	Subjects	Periods/Week			Evaluation			Credits
			L	T	P	IA	ESE	Total	
1.	CHPBTT1	Advanced Transport Phenomena	3	0	0	40	60	100	3
2.	CHPBTT2	Chemical Reactor Design	3	0	0	40	60	100	3
3.		Elective – III	3	0	0	40	60	100	3
	CHPBTP1	Computational Fluid Dynamics							
	CHPBTP2	Fuel Cell Technology							
	CHPBTP3	Process Plant Design & Flow Sheeting							
4.		Elective – IV	3	0	0	40	60	100	3
	CHPBTP4	Design & Development of Catalyst							
	CHPBTP5	Industrial Pollution Control							
	CHPBTP6	Safety Hazards & Risk Analysis							
5		Open Elective	3	0	0	40	60	100	3
	MSPBTO1	1. Business Analytics							
	IPPBTO2	2. Industrial Safety							
	IPPBTO3	3. Operations Research							
	CEPBTO4	4. Cost Management of Engineering Projects							
	MEPBTO5	5. Composite Materials							
	CHPBTO6	6. Waste to Energy							
	ECPBTO7	7. Internet of Things							
	MCPBTO8	8. MOOCs							
6.	CHPBLT1	Advanced Chemical Engineering Lab	0	0	4	30	20	50	2
7.	CHPBPT1	Mini Project	0	0	4	30	20	50	2
8.		Audit Course/Value Added Course	2	0	0	0	0	0	0
	ELPBTX1	English for Research Paper Writing							
	PEPBTX2	Stress Management by Yoga							
	CEPBTX3	Disaster Management							
	LAPBTX4	Constitution of India							
Total								600	19

Note: Under MOOCs the students have to opt any subject other than Chemical Engineering from NPTEL/UGC SWAYAM

M.Tech. III-Semester

Sl.	Course Type/ Code	Subjects	Periods/Week			Evaluation			Credits
			L	T	P	IA	ESE	Total	
1.	CHPCPT1	Dissertation Stage–I	0	0	28	100	100	200	14
Total								200	14

M.Tech. IV-Semester

Sl.	Course Type/ Code	Subjects	Periods/Week			Evaluation			Credits
			L	T	P	IA	ESE	Total	
1.	CHPDPT1	Dissertation Stage–II	0	0	32	100	200	300	16
Total								300	16

Total Credits for the Program = 19 + 19 +14 +16 = 68

Note: Highlight the Courses having field projects / research projects / internships.