

Department of Chemical Engineering

Details of Departmental Compulsary (DC) Courses

Departmental Compulsary (DC) Courses				
S. No.	Course Code	Course Name	L-T-P	Course Type
1	CHC201	Chemical Process Calculations	3-0-0	Theory
2	CHC202	Fluid and Particle Mechanics	3-1-0	Theory
3	CHC203	Heat Transfer	3-1-0	Theory
4	CHC204	Computational Tools for Chemical Engineers Lab	0-0-2	Practical
5	CHC205	Fluid and Particle Mechanics Lab	0-0-2	Practical
6	CHC206	Chemical Engineering Thermodynamics	3-0-0	Theory
7	CHC207	Principles of Mass Transfer	3-1-0	Theory
8	CHC208	Chemical Process Technology	3-0-0	Theory
9	CHC209	Process Dynamics and Control	3-0-0	Theory
10	CHC210	Heat Transfer Lab	0-0-2	Practical
11	CHC211	Process Control Lab	0-0-3	Practical
12	CHC301	Separation Processes	3-0-0	Theory
13	CHC302	Chemical Kinetics and Reaction Engineering	3-1-0	Theory
14	CHC303	Process Design and Economics	3-0-0	Theory
15	CHC304	Chemical Kinetics and Reaction Engineering Lab	0-0-3	Practical
16	CHC305	Mass Transfer Lab	0-0-3	Practical
17	CHC306	Chemical Process Equipment Design	3-0-0	Theory
18	CHC307	Process Modelling and Simulation	3-0-0	Theory
19	CHC308	Chemical Process Equipment Design Lab	0-0-2	Practical
20	CHC309	Process Simulation Lab	0-0-2	Practical
21	CHC401	Project - I	0-0-0 (6)	Non-Contact
22	CHC402	Project - II	0-0-0 (6)	Non-Contact
23	CHC501	Advanced Transport Phenomena	3-0-0	Theory
24	CHC502	Advanced Chemical Engineering Thermodynamics	3-0-0	Theory
25	CHC503	Computational Techniques in Chemical Engineering	3-0-0	Theory
26	CHC504	Advanced Chemical Reaction Engineering	3-0-0	Theory
27	CHC505	Advanced Process Control	3-0-0	Theory
28	CHC506	Instrumental Methods of Analysis	0-0-3	Practical
29	CHC507	Computational Techniques Lab	0-0-2	Practical
30	CHC508	Advanced Mass transfer	3-0-0	Theory
31	CHC509	Computational Fluid Dynamics	3-0-0	Theory
32	CHC510	Advanced Chemical Engineering Lab	0-0-3	Practical
33	CHC511	Term Paper and Presentation	0-0-2	Practical
34	CHC518	Research Methodology	3-0-0	Theory
35	CHC519	Catalytic Processes and Reactors	3-0-0	Theory
36	CHC520	Applied Statistics in Chemical Engineering	3-0-0	Theory
37	CHC597	Thesis	0-0-0 (36)	Non-Contact
38	CHC598	Thesis	0-0-0 (18)	Non-Contact
39	CHC599	Thesis	0-0-0 (S/X)	Audit
40	CHS401	Internship	0-0-0 (S/X)	Audit

Details of Engineering Science Option (ESO) Courses

Engineering Science Option (ESO) Courses				
S. No.	Course Code	Course Name	L-T-P	Course Type
1	CHE201	Engineering Thermodynamics	3-0-0	Theory
2	CHE202	Transport Phenomena	3-0-0	Theory

Details of Departmental Elective (DE) Courses

Departmental Elective (DE) Courses				
S. No.	Course Code	Course Name	L-T-P	Course Type
1	CHD401	Petrochemical Technology	3-0-0	Theory
2	CHD402	Polymers Science and Engineering	3-0-0	Theory
3	CHD403	Food Processing Technology	3-0-0	Theory
4	CHD404	Bioprocess Technology	3-0-0	Theory
5	CHD405	Energy Technology	3-0-0	Theory

6	CHD407	Materials Characterization	3-0-0	Theory
7	CHD408	Process Data Analytics	3-0-0	Theory
8	CHD411	Catalytic Reaction Engineering	3-0-0	Theory
9	CHD413	Advanced Separation Processes	3-0-0	Theory
10	CHD415	Interfacial Phenomena and Microfluidics	3-0-0	Theory
11	CHD417	Membrane Science and Engineering	3-0-0	Theory
12	CHD418	Electrochemical Science and Engineering	3-0-0	Theory
13	CHD501	Membrane Technology	3-0-0	Theory
14	CHD502	Nanotechnology	3-0-0	Theory
15	CHD503	Catalysts & Materials Characterization Techniques	3-0-0	Theory
16	CHD504	Process Optimization	3-0-0	Theory
17	CHD505	Interfacial and Colloidal Phenomena	3-0-0	Theory
18	CHD506	Carbon Capture and Clean Energy	3-0-0	Theory
19	CHD507	Modelling & Simulation	3-0-0	Theory

Details of Open Elective (OE) Courses

Open Elective (OE) Courses				
S. No.	Course Code	Course Name	L-T-P	Course Type
1	CHO301	Petroleum Refining	3-0-0	Theory
2	CHO302	Industrial Safety and Hazards Management	3-0-0	Theory
3	CHO401	Process Integration	3-0-0	Theory
4	CHO402	Biofuels & Biomass Conversion Technology	3-0-0	Theory
5	CHO403	Process Intensification	3-0-0	Theory
6	CHO404	AI in Process Industries	3-0-0	Theory
7	CHO501	Rheology	3-0-0	Theory
8	CHO502	Fluidization Engineering	3-0-0	Theory