

IIIT RK Valley
Rajiv Gandhi University of Knowledge Technologies-AP
Department of Chemical Engineering
Course Structure from 2015 Batch Onwards

EI Semester-I

Course code	Name of the Course	L	T&PS	P	Credits
MA1101	Engineering Mathematics -I	2	2	0	4
CY1101	Chemistry	2	2	0	4
CE1102	Engineering Drawing	2	2	0	4
CH1101	Chemical Process Calculations	2	2	0	4
CS6101	Programming in C and Data structures	2	2	0	4
EN502	Advanced English & Communication Skills Lab-I	0	0	2	2
CY1701	Physical & Analytical Chemistry Lab	0	0	2	2
CS6701	Programming in C and Data structures Lab	0	0	2	2
Total Credits					26

EI Semester-II

Course code	Name of the Course	L	T&PS	P	Credits
MA1201	Engineering Mathematics -II	2	2	0	4
CH1201	Chemical Engineering Thermodynamics	2	2	0	4
CH1202	Mechanical Unit Operations	2	2	0	4
CH1203	Momentum Transfer	2	2	0	4
CH1204	Process Heat Transfer	2	2	0	4
CH1801	Mechanical Unit Operations Lab	0	0	2	2
EN602	Advanced English & Communication Skills Lab-II	0	0	2	2
CH1802	Momentum Transfer Lab	0	0	2	2
Total Credits					26

E1 Summer Semester

Course code	Name of the Course	L	T&PS	P	Credits
MA2204	Probability and Statistics	2	2	0	4
CY3701	Organic Chemistry Lab	0	0	2	2
Total Credits					6

E2 Semester-I

Course code	Name of the Course	L	T&PS	P	Credits
CH2101	Phase and Chemical Equilibria	2	2	0	4
CH2102	Chemical Reaction Engineering- I	2	2	0	4
CH2103	Mass Transfer Operations -I	2	2	0	4
CH2104	Chemical Technology	2	2	0	4
CH2105	Instrumentation & Process Control	2	2	0	4
EN702	Advanced English & Communication Skills Lab-III	0	0	2	2
CH2701	Process Heat Transfer Lab	0	0	2	2
CH2702	Process Dynamics & Control Lab	0	0	2	2
Total Credits					26

E2 Semester-II					
Course code	Name of the Course	L	T&PS	P	Credits
CH2201	Chemical Reaction Engineering -II	2	2	0	4
CH2202	Process Modelling & Simulation	2	2	0	4
CH2203	Mass Transfer Operations -II	2	2	0	4
CH2204	Process Equipment Design	2	2	0	4
CH2205	Transport Phenomena	2	2	0	4
EN802	Advanced English & Communication Skills Lab-IV	0	0	2	2
CH2801	Chemical Reaction Engineering Lab	0	0	2	2
CH2802	Mass Transfer Operations Lab	0	0	2	2
Total Credits					26
E2 Summer Semester					
Course code	Name of the Course	L	T&PS	P	Credits
CH2301	Plant Design and Economics	2	2	0	4
CH2901	Process Modelling & Simulation Lab	0	0	2	2
Total Credits					6
E3 Semester-I					
Course code	Name of the Course	L	T&PS	P	Credits
	Elective-I	2	2	0	4
	Elective-II	2	2	0	4
	Elective-III	2	2	0	4
BMXXXX	Free Elective-I	2	2	0	4
CH3700	Mini Project				4
Total Credits					20
E3 Semester-II					
Course code	Name of the Course	L	T&PS	P	Credits
	Elective-IV	2	2	0	4
	Elective-V	2	2	0	4
	Elective-VI	2	2	0	4
	Free Elective-II	2	2	0	4
CH3800	Mini Project				4
Total Credits					20
E3 Summer Semester					
Course code	Name of the Course	L	T&PS	P	Credits
CH3900	Summer Internship				4
Total Credits					4
E4 Semster-I					
Course code	Name of the Course	L	T&PS	P	Credits
HS3201	Environmental Science	2	2	0	4
	Elective-VII	2	2	0	4
	Free Elective-III	2	2	0	4
CH4700	Project				6
Total Credits					18

E4 Semester-II					
Course code	Name of the Course	L	T&PS	P	Credits
	Elective-VIII	2	2	0	4
	Elective-IX	2	2	0	4
	Free Elective-IV	2	2	0	4
CH4800	Project				6
CH4900	Community Service				2
Total Credits					20
Grand Total Credits					198
List of Open Electives					
Course code	Name of the Course	L	T&PS	P	Credits
CH5101	Basics of Nanotechnology	2	2	0	4
CH5102	Green Technology	2	2	0	4
CH5103	Nuclear Engineering	2	2	0	4
CH5104	Solid Waste Management	2	2	0	4
List of Electives					
Course code	Name of the Course	L	T&PS	P	Credits
Elective-1					
CH3501	Energy Engineering	2	2	0	4
CH3502	Fertilizer Technology	2	2	0	4
CH3503	Waste to Energy Conservation	2	2	0	4
Elective-2					
CH3504	Material Science for Chemical Engineers	2	2	0	4
CH3505	Energy conservation in process Industries	2	2	0	4
CH3506	Advanced Mathematical Techniques in Chemical Engineering	2	2	0	4
Elective-3					
CH3507	Petroleum and Petrochemical Technology	2	2	0	4
CH3508	Process Intensification	2	2	0	4
CH3509	Nuclear Technology	2	2	0	4
Elective-4					
CH3601	Industrial Pollution Control and Engineering	2	2	0	4
CH3602	Rheology of Polymers	2	2	0	4
CH3603	Polymer Engineering	2	2	0	4
Elective-5					
CH3604	Optimization of Chemical Processes	2	2	0	4
CH3605	Finite Element Methods	2	2	0	4
CH3606	Computational Fluid Dynamics	2	2	0	4
Elective-6					
CH3607	Membrane Technology	2	2	0	4
CH3608	Design & Analysis of Experiments	2	2	0	4
CH3609	Interfacial Engineering	2	2	0	4
Elective-7					

CH4501	Industrial Safety and Hazard Management	2	2	0	4
CH4502	Multiphase flow	2	2	0	4
CH4503	Fuel Technology	2	2	0	4
Elective-8					
CH4504	Biochemical Engineering	2	2	0	4
CH4505	Process Instrumentation	2	2	0	4
CH4506	Pharmaceutical Engineering	2	2	0	4
Elective-9					
CH4601	Industrial Engineering and Management	2	2	0	4
CH4602	Entrepreneurship	2	2	0	4
CH4603	Management science	2	2	0	4
Elective-10					
CH4604	Fluidization Engineering	2	2	0	4
CH4605	Modern Instrumental Methods of Analysis	2	2	0	4
CH4606	Corrosion Engineering	2	2	0	4