

Course Outcome for all subjects B.E.-Sem V & VI (Chemical Engineering)

CHC501	Chemical Engineering Thermodynamics – II (CET-II)
Course Code	Course Outcomes
CHC501.1	Estimate properties of ideal & non ideal solutions & mixture.
CHC501.2	Apply concepts of phase equilibrium for design of distillation column.
CHC501.3	Calculate feasibility of reaction, heat of reaction, extent of reaction & equilibrium composition.
CHC501.4	Learn to devise a technically feasible refrigerator for wide applications.

CHC502	Mass Transfer Operations - I (MTO-I)
Course Code	Course Outcomes
CHC502.1	To understand the knowledge of mass transfer by applying principles of diffusion, mass transfer coefficients and interphase mass transfer.
CHC502.2	To understand the concept and operation of various types of gas-liquid contacts equipments
CHC502.3	To determine NTU, HTU, HETP and height of packed bed used for Absorption and Humidification operations
CHC502.4	To find time required for drying and to understand the operation of various types of drying equipments.

CHC503	Heat Transfer Operations – I (HTO-I)
Course Code	Course Outcomes
CHC503.1	Students should be able to calculate heat transfer, by all 3 modes of heat transfer.
CHC503.2	Basic principles, mechanism & calculation of heat transfer
CHC503.3	Interpret Unsteady state heat transfer.
CHC503.4	Design of heat exchangers

CHC504	Chemical Reaction Engineering - I (CRE-I)
Course Code	Course Outcomes
CHC504.1	Understand the kinetics of different type of reactions.
CHC504.2	Analyze the effect of temperature and concentration in Rate equation
CHC504.3	Compare reaction mechanism and evaluate kinetic expression
CHC504.4	Design Reactors for different type of reactions (single and multiple reactions).
CHC504.5	Develop skills to choose the right reactor among single, multiple, recycle reactor, etc. for isothermal/ nonisothermal/ adiabatic reactions.

CHC505	Chemical Technology (CT)
Course Code	Course Outcomes
CHC505.1	Can describe various manufacturing processes used in chemical process industries
CHC505.2	Can understand major engineering problems encountered in chemical process industries
CHC505.3	Can determine process aspects like yield, byproducts formed, generation of waste
CHC505.4	Can draw and explain process flow diagrams for a given process

CHC506	Business Communication & Ethics (BCE)
Course Code	Course Outcomes
CHC506.1	Communicate effectively in both verbal and written form and demonstrate knowledge of professional
CHC506.2	Participate and succeed in Campus placements and competitive examinations like GATE, CET
CHC506.3	Possess entrepreneurial approach and ability for life-long learning
CHC506.4	Have education necessary for understanding the impact of

	engineering solutions on Society and demonstrate awareness of contemporary issues.
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CHC601	Instrumentation
Course Code	Course Outcomes
CHC601.1	The students will be able to calculate the output of various measuring scheme
CHC601.2	The students will be able to select a DAQ card for any given application
CHC601.3	The students will be able to select the appropriate type of instrument for any application
CHC601.4	The students will be able to prepare a basic scheme for process unit
CHC601.5	The students will be able to write programs for PLC

CHC602	Mass Transfer Operations – II (MTO-II)
Course Code	Course Outcomes
CHC602.1	The concept of Equilibrium in all separation operations should be clear.
CHC602.2	Working of Extraction, adsorption, Leaching equipments.
CHC602.3	Able to design Distillation columns.
CHC602.4	Able to choose Economical separation.
CHC602.5	Optimize the process parameters.
CHC602.6	understand working & principles of membranes

CHC603	Heat Transfer Operations – II (HTO-II)
Course Code	Course Outcomes
CHC603.1	Students will be able to do the thermal design of shell and Tube heat exchanger, plate heat exchanger.
CHC603.2	Acquire knowledge about thermal design of condensers.

CHC603.3	Acquire knowledge about the thermal design of reboilers.
CHC603.4	Students will be able to know design of furnaces and perform heat exchanger design using modern software.

CHC604	Chemical Reaction Engineering – II (CRE-II)
Course Code	Course Outcomes
CHC604.1	Understand the concept of Residence Time Distribution (RTD) in various reactors and obtain the actual design parameters to design Real Reactor.
CHC604.2	Find the model equation and use this model to design the reactors used for heterogeneous non catalytic reactions.
CHC604.3	Apply the knowledge they have gained to develop kinetic model and Design strategy for heterogeneous catalytic reactions.
CHC604.4	apply the knowledge they have gained to develop kinetic model and use this model to design the reactors used for Fluid-Fluid reactions

CHC605	Plant Engineering (PE)
Course Code	Course Outcomes
CHC605.1	Students should know to apply Industrial safety, Utilities & statistical analysis.
CHC605.2	Aware of the importance of Safety, Hygiene & risk analysis.
CHC605.3	Comparative study of working, calculations of boilers.
CHC605.4	Various compressors, principles & dry air.
CHC605.5	Refrigeration, Vacuum, Venting & flaring in Industries
CHC605.6	Statistical analysis like ANNOVA for datas/studies

CHC606	Advanced Material (AM)
Course Code	Course Outcomes
CHE606.1	To understand the properties of various advanced polymeric, ceramic

	and metallic materials and their applications in various fields
CHE606.2	To gain knowledge of different types of polymer, ceramic and composite materials
CHE606.3	To gain knowledge of fabrication of various polymeric, ceramic and composite materials
CHE606.4	To gain knowledge of types of nanotubes and nanosensors and their applications
CHE606.5	To gain knowledge of different thin film coating methods and their applications in various fields