1.	Title of the course	Chemical Reaction Engineering
2.	Course number	CH212L
3.	Structure of credits (L-T-P-C)	3-1-0-4
4.	New course/modification to	Modified with CH301L/HOMOGENEOUS REACTION ENGINEERING
5.	To be offered by	Chemical Engineering
6.	Prerequisite	None
7.	**Course Objective(s):** To determine the rate law for chemical reaction(s) and design chemical reactors.	
8.	**Course Content:** Rate law and stoichiometry; Kinetics of homogeneous reactions; Types of reactors; Analysis and interpretation of kinetic data from batch reactors; Design of continuous stirred tank reactor (CSTR), plug flow reactor (PFR); Single and multiple reactions; Temperature and pressure effects; Residence time distribution (RTD); Non-ideal reactor models; Introduction to catalysis and heterogeneous reactions.	
9.	**Textbook(s):** 1. Fogler S H, Elements of Chemical Reaction Engineering, 5th Edition, Prentice Hall India (2016). 2. Levenspiel O, Chemical Reaction Engineering, 3rd Edition, Wiley India (2006).	
10.	**Reference(s):** 1. Davis M E and Davis R J, Fundamentals of Chemical Reaction Engineering, McGraw Hill (2003). 2. Doraiswamy L K and Uner D, Chemical Reaction Engineering: Beyond the Fundamentals, CRC Press (2013). 3. Froment G F and Bischoff K B, Chemical Reactor Analysis and Design, 2nd Edition, John Wiley & Sons (1990). 4. Schmidt L D, The Engineering of Chemical Reactions, 2nd Edition, Oxford University Press (2005).	