

INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI

भारतीय प्रौद्योगिकी संस्थान तिरुपति

1.	Title of the course	Reaction Engineering Laboratory
2.	Course number	CH306P
3.	Structure of credits	0-0-3-2
4.	Offered to	UG
5.	New course/modification to	Modification To CH3292/12
6.	To be offered by	Department of Chemical Engineering
7.	To take effect from	January 2022
8.	Prerequisite	Nil
9.	Course Objective(s): To perform experiments for applying the principles of chemical kinetics, reaction engineering and catalysis.	
10.	Course Content: Kinetics of liquid phase reaction; Residence time distribution studies in tubular flow reactor, single tank, series of tanks, and packed bed reactor; Kinetics of heterogeneous reactions.	
11.	Textbook(s): 1. Fogler S H, <i>Elements of Chemical Reaction Engineering</i> , 4th Edition, Prentice Hall India (2015). 2. Levenspiel O, <i>Chemical Reaction Engineering</i> , 3rd Edition, Wiley India (1999).	
12.	Reference(s): 1. Davis M E and Davis R J, Fundamentals of Chemical Reaction Engineering, 1st Edition, McGraw Hill (2003). 2. Doraiswamy L K and Uner D, Chemical Reaction Engineering: Beyond the Fundamentals, 1st Edition, 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).	