

1.	Title of the course	Process Control Laboratory
2.	Course number	CH3294
3.	Status of the course	Core
4.	Structure of credits	0-0-3-2
5.	Offered to	UG
6.	New course/modification to	New course
7.	To be offered by	Department of Chemical Engineering
8.	To take effect from	January 2022
9.	Prerequisite	Nil
10.	Whether approved by the Department	Yes
11.	Course Objective(s): To perform experiments for studying the dynamic response of process systems and instruments. To tune controllers and study the closed loop response of process systems.	
12.	Course Content: Interacting and non-interacting tank systems, level control, temperature control, pressure control, proportional-integral-derivative controller apparatus, control valve characteristics, simulation of control systems.	
13.	Textbook(s): 1. Seborg D E, Edgar T F, Mellichamp D A and Doyle F J, <i>Process Dynamics and Control</i> , 3rd Edition, Wiley India (2011). 2. Stephanopoulos G, <i>Chemical Process Control: An Introduction to Theory and Practice</i> , 1st Edition, Pearson Education India (2015).	
14.	Reference(s): 1. Coughanowr D R and LeBlanc S E, <i>Process Systems Analysis and Control</i> , 3rd Edition, Tata McGraw Hill (2013). 2. Ogunnaike B and Ray W H, <i>Process Dynamics, Modelling and Control</i> , 1st Edition, Oxford University Press (1994). 3. Sinnott R K and Towler G, <i>Coulson and Richardson's Chemical Engineering: Chemical Engineering Design, Volume 6</i> , 3rd Edition, Butterworth-Heinemann (2015).	