

1.	Title of the course	Separations Laboratory
2.	Course number	CH319P
3.	Structure of credits (L-T-P-C)	0-0-3-2
4.	New course/modification to	Modified with CH302P/MASS TRANSFER LABORATORY
5.	To be offered by	Chemical Engineering
6.	Proposed by	Nilesh Choudhary
7.	Prerequisite	None
8.	Course Objective(s): To experimentally demonstrate the principles of mass transfer and study the effect of operating parameters on the separation processes.	
9.	Course Content: Particle size reduction and sieve analysis, sedimentation in slurries, filtration of solid-liquid mixture, vapor-gas diffusivity using Stefan's tube, drying kinetics, batch distillation, distillation in plate and packed columns, gas absorption, liquid-liquid extraction, leaching, water purification using reverse osmosis, adsorption equilibrium and kinetics.	
10.	Textbook(s): 1. McCabe W L, Smith J C and Harriot P, Unit Operations of Chemical Engineering, 7th Edition, Tata McGraw Hill (2014). 2. Treybal R E, Mass Transfer Operations, 3rd Edition, Tata McGraw Hill (2012).	
11.	Reference(s): 1. Dutta B K, Principles of Mass Transfer and Separation Processes, 2nd Edition, Prentice Hall India (2007). 2. Seader J D and Henley E J, Separation Process Principles with Application using Process Simulators, 4th Edition, John Wiley & Sons (2016).	