1.	Title of the course	Separation and Purification Processes
2.	Course number	CH302L
3.	Structure of credits	2-1-0-3
4.	Offered to	UG
5.	New course/modification to	Modification To CH3103/12
6.	To be offered by	Department of Chemical Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	**Course Objective(s):** To identify appropriate processes for separation of a given mixture. To apply the principles of mass transfer and design equipment to achieve the desired separation.	
10.	**Course Content:** Introduction to separation and purification processes; Equilibrium stage-wise and rate-based approaches; Distillation: vapor-liquid equilibria, flash distillation, batch distillation, steam distillation, multistage tray and packed towers; Introduction to multicomponent distillation; Absorption and stripping; Liquid-liquid extraction; Leaching; Humidification; Drying; Adsorption; Introduction to membrane separations.	
11.	**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).	
12.	**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).	