CH354	MASS TRANSFER OPERATIONS-I LAB	L	T	P	C	Int	Ext
		-	-	2	1.0	30	70

Semester V [Third Year]

COURSE OBJECTIVES:

1. To determine the diffusion coefficient in binary systems of liquids and gases.
2. To understand surface evaporation in stationary surfaces.
3. To study hydrodynamics column.
4. To determine the kinetic and equilibrium parameters of drying of wet solids.

COURSE OUTCOMES:

After the successful completion of the course,students are able to

1. Estimate the diffusivity of material in mass transfer operations.
2. Predict the mass transfer coefficients.
3. Prepare the characteristic curves of drying.
4. Appraise hydrodynamics of the column.

EXPERIMENTS:

1. Diffusivity for liquid-liquid system..
2. Diffusivity coefficient for given vapor-gas system.
3. Mass transfer coefficient for Surface evaporation of a liquid.
4. Hydrodynamics of single drop extraction.
5. Hydrodynamics of perforated plate tower.
6. Mass transfer coefficient in a wetted wall tower.
7. Mass transfer coefficient in a Packed bed absorption.
8. Mass transfer coefficient in a perforated plate tower.
9. Batch drying
10. Humidification and Dehumidification

LEARNING RESOURCES:

TEXT BOOK:

Mass Transfer Operations, Robert E. Treybal, 3rd edition, International Edition, McGraw Hill (1981).