

SYLLABUS :-

Numerical techniques for solving material & energy balance equations.

Material balance with and without chemical reactions, Recycle, bypass, purge calculations, computer based calculations.

Vapor-liquid equilibrium: Bubble point, dew point calculations, phase envelop calculations.

Introduction to Fuels (solid, liquid and gas): Important properties and specifications.

Energy balances with and without chemical reactions; psychometric calculations; fuel calculations, adiabatic flame temperature; computer-based calculations for energy balance.

Text Book:

1. Chemical Process Principles, Part I by O. A. Hougen, K. M. Watson and R. A. Ragatz
2. Basic Principles and Calculations in Chemical Engineering by D. M. Himmel - blau.