CH-429 Interface Chemistry

Credit Hours: 3-0

Prerequisite: Nil

Course Objectives:

To understand the principal and chemical phenomenon taking place at interface managementpractices on organizational performance.

Course Contents:

Surfaces in materials, physics of solid surfaces, theoretical models for adsorption, spectroscopic and other techniques for studying adsorption. Interfacial flow, stationary liquid layers, interfacial oscillations and waves. Instabilities of parallel flows and films. Influence of lateral boundaries. Ion surface interactions, electron surface interactions. Photon surface interactions, chemistry of surfaces.

Course Outcome:

Understand the physics and chemistry of solid surfaces

Learn different techniques to study different interfacial phenomenon. Learn how different species interact with surfaces.

To manipulate interfacial characteristics for different application.

Recommended Books:

1) Alexander A. Nepomnyashchy, Manuel G. Velarde, and Pierre Colinet, *Interfacial Phenomena and Convection, Chapman and Hall/CRC, 2002*

2) Helmut Dosch, *Critical Phenomena at Surfaces and Interfaces, Springer, 1992*

3) Robert J. Nemanich, P. S. Ho, and S. S. Lau, *Thin Films: Interfaces and Phenomena*