0404721 Advanced Transport Phenomena

This course deals with advanced treatment of transport phenomena as applied to momentum, heat and mass transfer processes. The course covers the following topics: A review of vectors and tensors. A review of fundamental aspects of transport phenomena, molecular transport mechanisms, shell balances applied to one-dimensional transport and derivation of general balance equations based on control volume approach. Applications on the use of the general equation of change will include one and two dimensional transport as well as unsteady state transport. Introduction to boundary layer theory. Turbulent flow.