8TH SEMESTER:

MEMBRANE SEPARATION PROCESSES (CHE1818PE41)

Course Outcomes:

1. Understand the basics of membrane and membrane based separation processes; their importance and relevance in chemical industry in comparison to other conventional separation processes.
2. Select suitable type and module of membrane for specific separations on the basis of knowledge of principles of separation and nature of applications.
3. Synthesize and characterize various types of membranes by selecting appropriate techniques.
4. Evaluate membrane performance parameters e.g flux and retention from the experimental data by choosing appropriate transport models.
5. Apply suitable techniques to reduce concentration polarization and fouling of membranes so as to make them sustainable.

TRANSPORT PHENOMENON (CHE181801)

Course Outcomes:

1. Understand basic concepts of transport phenomena and thus analyze the role of intermolecular forces in transport process.
2. Demonstrate the role of molecular transport mechanism and thus draw the analogy between heat, mass and momentum transport.
3. Apply the conservation concept and construct the property balance equation, applying both molecular and convective transport.
4. Apply the property balance equation to solve real plant problems like flow through pipes and between parallel plates and show important relationships.
5. **Apply concepts of continuity and Navier-Stokes equation and used in solving the real in plant problems**