Course code and Title: PE-416 Reservoir Engineering-II

Course Contents:

Water influx modeling

Aquifer definition, classification and properties, Water influx theory and models; Steady and Unsteady state for finite and infinite aquifers.

Material balance and recovery strategies

Estimating oil well rates under different drives mechanisms, Volatile oil MBE, Calculation of original gas and condensate in place for volumetric gas condensate and volatile oil reservoirs, reserves calculations with and without compositional data, Case histories.

Reservoir Engineering Development & Management

A review of physical properties, geology, technology, economical limitations, etc. for development and management of a particular field. Study of various optimization strategies applicable to field development. Case histories.

Text book

 Lake, Larry W. "Petroleum engineering handbook". Society of Petroleum Engineers, ISBN-13: 978-1555631260, 2006.

Reference Book

1. Ahmed, Tarek, and Paul McKinney, "Advanced reservoir engineering", Elsevier, 2011.