

| Course Type | Course Code | Name of Course | L | T | P | Credit |
|-------------|-------------|--------------------------------|---|---|---|--------|
| DP8 | PEC309 | Reservoir Characterization Lab | 0 | 0 | 2 | 2 |

Course Objectives:

- i. To provide on-hand training of different oil and gas filed operations.
- ii. To provide the basic knowledge of different oil and gas field simulators.

Learning Outcomes:

- i. Exposure of different field simulators.
- ii. Practical aspects with hands-on working on oil field commercial simulators

COURSE CONTENT:

| Exp. No. | Name of the Experiment | Contact Hrs |
|----------|---|-------------|
| 1. | Oil well bore performance of a vertical well. | 2 |
| 2. | Gas well bore performance of a vertical well. | 2 |
| 3. | Optimization of well bore performance: Tubing Size, Well head pressure etc. | 2 |
| 4. | Performance prediction of a depletion drive reservoir using material balance | 2 |
| 5. | Performance prediction of a water drive reservoir using material balance | 2 |
| 6. | Phase behaviour of reservoir fluids: Phase envelope generation of HC mixtures and associated calculation. | 2 |
| 7. | Black oil reservoir simulation in a 2-D system. | 2 |
| 8. | Modelling and optimization of surfactant flooding process. | 2 |
| 9. | Well test data interpretation in oil wells | 2 |
| 10. | Basic well log interpretation: Identification of pay zone and calculation of saturation | 2 |
| 11. | Oil well bore performance of a vertical well. | 2 |