

GUI-1 Guided Reservoir Simulation & FDP studies (ON-JOB Training: 15 weeks)

DUBAI: 11/3 – 21/6 AND 9/9 - 20/12 2019

Fees: Contact PETRO-TEC

PROGRAM OVERVIEW

PETRO-TEC would like to introduce this very new training programme which is a result from our training experience in many companies. It is designed to help oil firms willing to run a crash programme to train new engineers to undertake field development studies; with special emphasis on reservoir characterization and simulation. In the following paragraphs a brief summary of the main points is given.

THE PROJECT OBJECTIVES

To train your staff in field development studies “From A to Z”. At the end of the program the participants would have learnt and practiced the different project execution steps, and having completed the work under our supervision. They will be in a good position to initiate, plan, and execute their own studies. The first few studies may need light supervision.

METHODOLOGY

The training methodology of this program will be Taught course, practical sessions using real field data with production history, and group discussions. The program is computer based providing hands-on experience that breaks the ice between the participant and the training topics. Different instructors will be guiding the various phases of the study under the overall supervision of PETRO-TEC program coordinator.

A number of project teams will be formed from different disciplines of the participants to tackle the on-job study (Petroleum Engineers, Geologists, Petrophysicists, Geophysicists, Petroleum Technologist, and Economists).

WHO SHOULD ATTEND

The course is intended for Reservoir Engineers, Geo-modellers, Development Geologists, Petrophysicists, and technical staff responsible to undertake Field Development Studies.

PROGRAM CONTENT

(A) Reservoir analysis and appraisal studies (4 weeks)

The participants will be guided through a structured programme starting from the reservoir engineering principles up to the stage of conducting analytical studies. This training phase includes:

- Applied Reservoir Engineering.
- Fluid properties and phase behavior analysis.
- Well Test analysis.
- Classical reservoir appraisal.
- Volumetric estimates of hydrocarbons in place and recoverable reserves.
- Analytical (MB) Performance prediction Studies.
- Prospect appraisal and economic evaluation.

(B) Reservoir Characterization and Simulation: (8 weeks)

- Reservoir Geological Modelling.
- Petrophysical considerations in Reservoir Simulation.
- QC of the Static Model.
- QC of the PVT reports.
- QC of the test reports.
- Reservoir zonation, Pc, Kr, OWC, and GOC inputs.
- Compartmentalisation, Transmissibility, and Anisotropy.
- Data integration.
- Aquifer types and aquifer sizing.
- Choice of Simulator: Black Oil or Compositional.
- Planning of the Simulation Study.
- History Matching: Procedure, Techniques, and Pitfalls.
- Future Performance Prediction.

(C) Study reporting: (1 week)

- The Technical report.
- The electronic report.
- Commitments after completion of the study

(D) Field Development Plans (FDP): (3 Weeks)

- Provide Guidance through the different stages of the FDP.
- Provide training and exercises on the different stages of technical decision making in these studies, and highlight and evaluate the different types of risk involved.
- Economic evaluation of the FDP.

THE LECTURERS

Different instructors will be guiding the various phases of the study under the overall supervision of PETRO-TEC program coordinator.