



Course review:

The aim of this course is to provide hands on experience on a wide range of petroleum engineering topics from reservoir engineering to well modelling, production optimization and forecasting. The course will cover various topics, including;

- Using material balance techniques to build the reservoir model
- Modelling different types of wells (e.g., production, injection) in order to calculate fluid rate and pressure drop in the wells and pipelines
- Managing reservoir and production operation for maximising recovery and economical life of the reservoir through an integrated workflow

Main topics:

This course is based on Petroleum Expert software; MBAL, Prosper and GAP for reservoir modelling, well modelling and production optimization respectively. This course is mainly based on a large number of practical examples/case studies as well as supporting theoretical/technical classes and lectures. Some of the topics covered in this course are given below as example:

- Reservoir modelling practice (MBAL):
 - Water drive oil reservoir modelling
 - Tight gas reservoir modelling
- Well modelling practice (Prosper)
 - Integrated oil well modelling
 - Modelling dry and wet gas producers
 - Modelling a naturally flowing oil well
 - Modelling an oil well with black oil PVT matching
 - Modelling a horizontal oil well
 - Modelling a multilateral oil producer
 - Modelling a slanted oil well
 - Modelling a gas well with connected pipelines
 - Modelling a water injection well
 - Modelling an oil well with gravel pack
 - Fully compositional CO₂ injection well
 - Matching a dry gas well test
 - Matching a naturally flowing oil well test
 - Matching a water injection well test
 - Matching a gas injection well test
 - Continuous gas lift design
 - Intermittent gas lift design
 - ESP design
 - Flow assurance calculations



- Production/injection network optimization practice (GAP)
 - Gas field network modelling
 - Oil production network
 - Gas lift optimization
 - Gas lift injection network
 - Electrical submersible pump-model calibration
 - Associated water injection system
 - Smart well modelling
 - GAP fully compositional

Course duration and cost:

This course covers a wide range of petroleum engineering topics; therefore the time required to cover all the above topics strongly depends on the previous experience of the audience. We currently recommend 4 weeks but can tailor the length based on your requirements.

Contact: Please email us at info@hydrafact.com

Certificate:

A certificate will be provided by Hydrafact at the end of the course.