

Petrogenium. Academy

Upstream (Field Development Planning)

Integrated Reservoir Analysis

Consultant / Trainer

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The **Petrogenium** (in collaboration with EPTS) **Integrated Reservoir Analysis** participants of the Integrated Reservoir Analysis course will gain a thorough understanding of how to integrate geoscience and engineering data into an economically viable Field Development Plan. They will learn to interpret and evaluate input data such as seismic surveys, well logs, cores, well tests, and fluid analyses, while appreciating the geological concepts and modelling techniques that underpin reservoir characterisation.



Participants

This **Petrogenium**. course aims at Geoscientists and petroleum engineers (reservoir engineers, petrophysicists & production technologists) about to be (or recently) assigned to a Subsurface Asset Team tasked with preparing a Field Development Plan ['FDP'], as well as explorationists involved in planning and implementing an appraisal campaign to provide the necessary input data for an FDP.



Learning Objectives

By the end of the course, participants will understand the complete workflow of subsurface asset characterization and modelling, from initial discovery to the execution of a Field Development Plan (FDP). They will gain clarity on the distinct roles and responsibilities of geoscientists, petroleum engineers, and other technical contributors, as well as their interactions with broader stakeholders. Participants will identify major technical and economic uncertainties that influence the success of an FDP and develop the ability to assess these uncertainties effectively. They will also learn how to communicate their impact clearly to senior management and external parties to support informed decision-making.

Programme

Day 1

Morning

- Overview of reservoir characterisation for Field Development Planning

Afternoon

- Fundamentals of Subsurface mapping & map QC
- [+ paper-based mapping exercises]

Day 2

Morning

- Structural regimes & subsurface stress systems
- Fundamentals of well-bore stability & 'fracking'
- [+ paper-based exercise 'Well bore orientation vs Stress field orientation']

Afternoon

- Reservoir heterogeneity - key to Reservoir Development

Day 3

Morning

- Reservoir heterogeneity - Saturation distribution
- [+ paper & Excel-based exercise 'Prediction of permeability in uncored well']

Afternoon

- Fluid properties and PVT
- Wells and well testing
- [+Excel-based exercises 'Fluid properties' + 'Prediction of Well Productivity']

Day 4

Morning

- Volumetrics, Handling Uncertainties in Field Development, scenario methods
- [+paper & Excel-based exercise 'Handling uncertainty']
- [&/or optional time slot for review and discussion of participants' own data sets]
- Drive mechanisms and displacement

Afternoon

- Simulation model setup [Case studies]

Programme

Day 5

Morning

- Producing wells and mature fields
- Economic evaluation
- Field case studies
- [+paper & Excel-based exercise - Field development planning' + 'Economic evaluation of the FDP']

Afternoon

- Finalisation of 'Field development planning' + 'Economic evaluation of the FDP' exercises
- Course close-out

Why select Petrogenium.?

The above support will be provided by principal consultants with 30+ years world-class experience in the technology and hands-on know-how from operation of refinery units.

Contact Petrogenium.:

Email: training@petrogenium.com

Website: <https://www.petrogenium.com/training/>

Because Experience Matters