

Training - Geomechanics for geoscientists



GEOMECH-EN-P



Face-to-face only



5 days

This training aims to equip professionals with essential geomechanics knowledge to ensure wellbore stability, reservoir integrity, and safe production. The course covers fundamentals, well and reservoir applications, and the impact of production on completions, enabling participants to apply geomechanical principles in drilling, injection, and field development decisions

Level

Knowledge

Public

Geoscientists and professionals (reservoir engineers, geologists, geophysicists) with no or limited experience in geomechanics

Objectives

Attendees will be able to implement the following skills:

- Understand the fundamentals of geomechanics, including stress, strain, rock failure, and poro-elastic behavior.
- Describe geomechanical principles to wellbore stability, drilling operations, and reservoir integrity during production and injection.
- Evaluate the impact of geomechanical changes on well completion and field development decisions.

Pedagogical & technical resources

Interactive presentations combined with hands-on exercises, guided by the instructor for practical application.

Assessment of achievements

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prerequisites

Knowledge in geosciences.

Responsible

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

INTRODUCTION TO GEOMECHANICS APPLICATION IN O&G INDUSTRY

0.25 day

FUNDAMENTALS OF GEOMECHANICS

2 days

Stresses.
Strains and Elasticity.

Rock Failure.
Poro-Elasticity.
Poro-Thermo-Elasticity.
Lab Testing.

WELL GEOMECHANICS

1 day

Stress around wellbore.
Shear failure around wellbore function of mud weight.
Wellbore stability while drilling.
Fracturing pressure.
1DMEM.

RESERVOIR GEOMECHANICS

1 day

Definition.
Stress path in and around reservoirs.
Subsidence.
Seal and reservoir integrity during injection.

IMPACT OF PRODUCTION ON WELL COMPLETION

0.5 day

Infill drilling.
Solids production.

SYNTHESIS & WRAP-UP

0.25 day

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.
Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com