

This course can be adapted to virtual classroom mode

Carbon Capture, Utilization & Storage (CCUS)

3 days

CCUS-EN-A

Overview

LEVEL

Knowledge

PURPOSE

The purpose of this training course is to give to the participants a better understanding of the CCUS technology various aspects from CO₂ capture to storage and monitoring.

What is CCUS chain?

How does CCUS impact the global climate change?

How E&P industry can participate in CCUS?

LEARNING OBJECTIVES

Upon completion of the course, participants will be able to:

discuss the CCUS chain,

participate in CCUS activities within their company,

describe the various steps of CCUS process and its bottlenecks.

WAYS AND MEANS

Interactive lectures and exercises.

Field case studies.

LEARNING ASSESSMENT

MCQ at the end of the training program

PREREQUISITES

Engineer diploma or equivalent experience.

Agenda

WHAT IS CCUS?

0.25 d

CCS technology overview: past, present and future.

Energy scenarios: the potential environmental impact of CCS within the IEA 2 degrees scenario.

CO₂ properties.

THE BASIS FOR CO₂ CAPTURE

0.25 d

CO₂ capture systems:

Industrial process capture system.

Post-combustion.

Pre-combustion.

Oxy-fuel.

New technologies.

CO₂ capture technologies:

Separation with absorbent.

Separation with membranes.

CO2 TRANSPORT TECHNOLOGIES

0.25 d

Pipeline.

Ships.

HSE problems.

CO2 GEOLOGICAL STORAGE TECHNOLOGIES

2 d

Storage mechanisms and security.

CO₂ Storage Resources Management System (SRMS).

Geological characterization.

Performance prediction.

Integrity.

Measurement, Monitoring and Verification (MMV).

CCUS: GAPS & KNOWLEDGES

0.25 d

Worldwide CCUS case studies.