Training - Engineering Studies during Project

MANEI-EN-P | Face-to-face only | 5 days

Technical understanding and sequencing of engineering studies

Level

Knowledge

Public

Personnel of contractors and engineering firms involved in the design phases of projects

Objectives

Attendees will be able to implement the following skills:

- List deliverables by study phase, for major disciplines
- Identify audit elements to ensure proper design and interface management
- Provide perennial elements to assess the consequences of a change, prior to its integration into the project

Pedagogical & technical resources

- Examples and diagrams from oil & gas projects, discussed in the form of exercises
- Mini-project offering practical applications for different engineering disciplines

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

No prerequisites are necessary to follow this course

Responsable

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

UNDERSTANDING OF PROJECT ORGANIZATION — 0.5 day

Different types of project: size, Greenfield vs. brownfield projects.
Project structure. Main project phases. Design studies scheduling.
Overview of design studies, from pre-project to detailed engineering phase

ROLE OF ENGINEERING IN A PROJECT — 1 day

Scope of works (SOW) of the engineering activities and basis of design (BOD).
Roles of contractors and subcontractors.
Its missions: studies, procurement, construction, project management. Identification of deliverables by phases.

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Conduct of studies on a project. Document management/validation (engineering, customer, vendors, subcontractors).

MAIN DELIVERIES & DISCIPLINE TASKS — 2.5 days

Analysis of the study basis. Applicable codes and standards. Kick off meeting.
Identification of tasks and deliverables during the study phases until the start of the purchasing process.
Detailed review of deliverables for the different engineering disciplines: process, health, safety and environment, layout, piping, materials/corrosion, equipment, instrumentation and automation, civil engineering/structures - Naval architecture/weight control for offshore project.
Integration of supplier documents in the study process. Management of interfaces between the different disciplines.
Management of study subcontracting.

REVIEWS & OPTIMIZATION — 0.5 day

Most used review methods: HAZID, HAZOP. Design reviews, 3D model review.
Optimization: energy efficiency review. Value engineering.
Evaluation of alternatives and optimal decision-making.

KEYS TO SUCCESS — 0.5 day

Interfaces management, Coordination between engineering, procurement and construction activities.
Internal constraints of the engineering schedule: interfaces between disciplines, vendor input.
How to take into account the geopolitical environment of the project, the constraints of objectives and means.
Adequacy of the deadlines of completion to the context. Deliverables related to the critical path. Management Of Change (MOC).

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

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