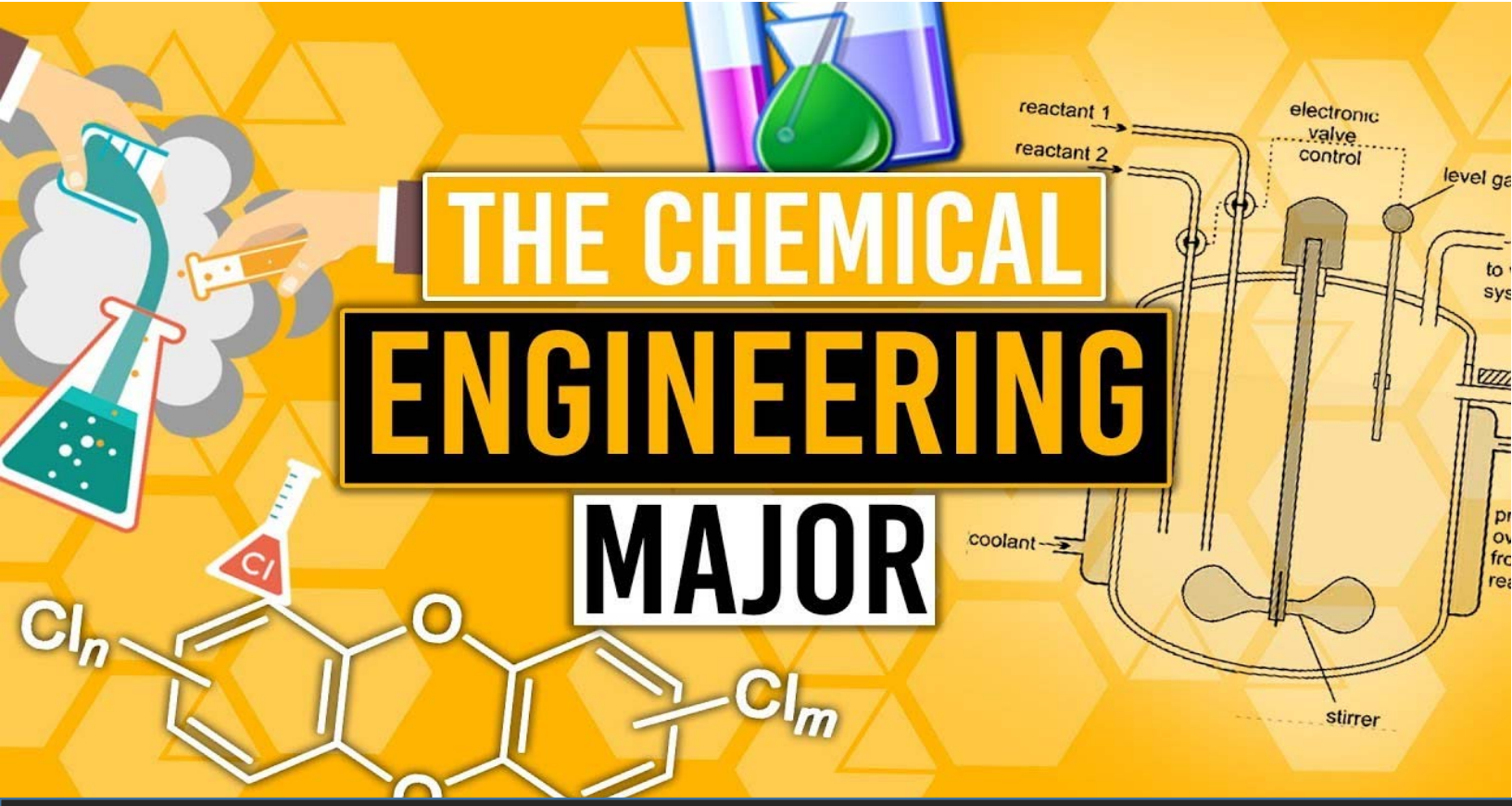

Floating Liquified Natural Gas (FLNG)

BTS
Training & Consultancy

Floating Liquified Natural Gas (FLNG)

COURSE OVERVIEW

The introduction of Floating Liquified Natural Gas (FLNG) provides more flexibility and permit the monetisation of assets through liquefaction of natural gas in remote areas. It reduces development costs and time from schedules. FLNG solutions are also used for exporting near-shore gas reserves or gas from an on-land pipeline network by locating the LNG production facility near shore. It is crucial to understand the environmental and design aspects affecting the operation to operate FLNGs successfully. Also, it is essential to understand all critical aspects of FLNG such as process, liquefaction, storage, offloading, energy and environmental issues.

The Floating Liquified Natural Gas (FLNG) training course will focus on the technical challenges and risks associated with the design, operation and maintenance of an FLNG. The participants will gain knowledge on FNLG plant process, storage, offloading, operational safety, energy and environmental aspects.

LEARNING OBJECTIVES

At the end of the Floating Liquified Natural Gas (FLNG) training course, delegates will be able to:

- Learn about regulations and key operational and maintenance requirements
- Recognise the effects of the marine environment on FLNG design and operation
- Learn about FLNG process plant & operational practices
- Understand the FLNG storage and offloading operations
- Understand Health & Safety and risk management in FLNG operations
- Gain knowledge on cryogenic piping, energy and environmental aspects

TARGET AUDIENCE

The Floating Liquified Natural Gas (FLNG) training course is beneficial to a wide range of professionals, including:

- Engineers from different disciplines
- Project engineers and managers
- Managers and executives who are new to the LNG and FLNG industry
- Operational & maintenance staff
- Non-engineering personnel working in FLNG environment

COURSE CONTENTS

Module 1 - Introduction to LNG and FLNG Industry

- **KeyTopics:**
  - Historical background
  - Comparison of LNG and FLNG
  - The working principle behind LNG FPSO
  - Gas processing and LNG production
  - Rules, Regulations, Codes and Standards
  - Operation and maintenance requirements
  - Conversion of gas LNG carriers to LNG FPSOs or FSRUs

Module 2 - LNG Process Plant & Operational Practices

- **KeyTopics:**
  - LNG properties
  - FLNG Gas Pretreatment
  - LNG Liquefaction Processes
  - FLNG Hull and Mooring Systems
  - LNG Liquefaction process –Case Study
  - LNG Operational Practice
  - Regasification

Module 3 - FLNG Storage and Offloading

- **KeyTopics:**
  - Design of Floating LNG Concepts
  - Fatigue considerations
  - Structural integrity and corrosion control
  - Containment Tanks
  - Sloshing in Containment Tanks
  - LNG Transfer Systems
  - Offloading risks

Module 4 - Cryogenic Piping, Energy and Environmental Aspects

- **KeyTopics:**
  - Cryogenic Piping
  - Material selection process
  - Structural aspects
  - Power Generation
  - Energy aspects of FLNG
  - Environmental aspects

Module 5 - Health, Safety and Environment (HSE)

- **KeyTopics:**
    - Safety in Operation and Maintenance of FLNG
    - Risks for an LNG carrier during operation
    - Identification of hazards
    - Risk Assessment
    - Risk based maintenance and inspection
    - Risks and Safety of LNG Spill Over Water
    - Hazards Areas
    - Risk Management for LNG operations over water