



المركز العالمي للتدريب والتطوير
International Centre For Training & Development



MOE124

Fundamentals of Offshore Systems Design and Construction



INTERNATIONAL ACCREDITATION ORGANIZATION



UNIVERSITY OF ROCKHAMPTON
MAKING THE DIFFERENCE



Course Introduction:

This five-day course provides a fundamental understanding of the technology and work processes used for the design and construction of all types of offshore systems asset development, surveillance and management. The content includes the full range of water depths from shallow water to ultra deepwater and will also address life-cycle considerations in all phases of offshore field development and operation. All major components required for offshore developments such as fixed and floating platforms, drilling rigs, workover equipment, pipelines, risers, process and utilities and construction equipment are discussed. Emphasis is placed on the multi-discipline team approach needed to manage the myriad interfaces of offshore facility design, construction and operations.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- ✓ Identify the key facilities parameters that must be evaluated for field development
- ✓ Describe the types and capabilities of offshore well construction, pipeline, riser and production (surface and subsea) facilities needed for all water depths, from shallow to ultra deepwater
- ✓ Recognize the best applications and characteristics of each type of offshore fixed and floating structure
- ✓ Account for the affects of the ocean environment on facilities design, construction and operations
- ✓ Identify the impact space, loads and forces have on the structural design and global performance of offshore structures and how they influence their cost
- ✓ Describe the impact topside facilities (drilling, well servicing, processing and utilities) affect the structural design and how the topside design process is done
- ✓ Recognize and manage key design and operational interfaces between the major components of offshore facilities systems
- ✓ Understand and apply the key design, construction and installation issues associated with fixed and floating platforms to your work

Who Should Attend?

This course is designed for individuals with a basic awareness of or experience in offshore engineering and operations. Technical staff, project engineers, engineering discipline leads,

engineering specialists and operating staff find this course accelerates their capability to contribute on offshore field development planning, design and construction projects and field operations.

Course Outline:

Day 1:

- Offshore systems overview and field architecture selection
- Well construction and servicing equipment and operation
- Flow assurance

Day 2:

- Topside facilities
- Oil and gas transportation facilities
- Riser systems

Day 3:

- Subsea systems
- Production operations
- Infrastructure impact on design and operations



Day 4:

- Effects of the ocean environment
- Introduction to naval architecture
- Structural design processes and tools

Day 5:

- Construction plans and execution
- Project management lessons learned
- Life-cycle and decommissioning considerations

Course Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request".

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Fees:

To be advised as per the course location. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session

