

1 COURSE OUTLINE

Course: **Oil and Gas Industry 101: Overview of the Oil and Gas Industry for Business Professionals.**

Contact Hours: 24 Contact Hours (3 hrs x 8 sessions)

Pre-requisite: None

1.1 Target Audience

This course is geared towards students, contractors, vendors, suppliers, young industry professionals, IT personnel, auditors, investors, insurance companies, legal and financial advisors, managers, supervisors, supporting staff and shared services personnel, energy industry consultants, business professionals, engineers, project teams, government professionals, and anyone looking to learn more about the Oil and Gas industry.

1.2 Course Objectives

The primary objective of this Oil and Gas Industry Overview training course is to empower professionals with —

- detailed understanding and knowledge of basics of the oil and gas industry
- the required confidence and knowledge to impart training to experienced professionals in the domain
- the necessary foresight and analytical skills to predict challenges and set corrective measures before occurrence to minimize impact on the organization
- the understanding and experience to devise simple solutions for troubleshooting and fixing any emergencies
- the patience and understanding to analyze a problem well and devise concrete next steps, to minimize the negative impact on the organization
- the ability to contribute to increased organizational value and branding
- the confidence and capabilities to handle higher roles and responsibilities that could come your way, making the best of every single opportunity coming to your work
- the knowledge to enhance the current processes and systems surrounding oneself, thus aiding operational efficiency and accuracy
- a sense of satisfaction by contributing to employee health and safety by ensuring all practices and systems adhere to the expected standards and conventions
- the required confidence and discussion to assume higher roles and responsibilities with the organization or from the outside

1.3 Topics Covered

Week 1:

- Introduction
- Facilities and processes
 - Exploration
 - Production
 - Upstream process sections
 - Midstream
 - Refining
 - Petrochemical

Week 2

- Reservoir and wellheads
 - Crude oil and natural gas
 - The reservoir
 - Exploration and drilling
 - The well
 - Wellhead
 - Artificial lift
 - Well workover, intervention and stimulation

Week 3

- The upstream oil and gas process
 - Manifolds and gathering
 - Separation
 - Gas treatment and compression
 - Oil and gas storage, metering and export

Week 4

- Midstream facilities
 - Gathering
 - Gas plants

- Gas processing
- Pipelines
- LNG

Week 5

- Refining
 - Fractional distillation
 - Basic products
 - Upgrading and advanced processes
 - Blending and distribution

Week 6

- Petrochemical
 - Aromatics
 - Olefins
 - Synthesis gas (syngas)

Week 7

- Utility systems
 - Process control systems
 - Digital oilfield
 - Power generation, distribution and drives
 - Flare and atmospheric ventilation
 - Instrument air
 - HVAC
 - Water systems
 - Chemicals and additives
 - Telecom

Week 8

- Unconventional and conventional resources and environmental effects
 - Unconventional sources of oil and gas
 - Emissions and environmental effects
 - Questions?