

Cloud-Based Data Infrastructure and Cybersecurity in Oil & Gas

COURSE OVERVIEW

This course blends technology in oil and gas and explores how modern cloud technologies are transforming the oil and gas industry by enabling secure, scalable, and efficient data management. It covers the fundamentals of cloud-based infrastructure, industrial IoT integration, real-time data analytics, and cybersecurity frameworks tailored to protect sensitive operational technologies (OT) and information systems (IT). Through industry-specific use cases, participants will gain a comprehensive understanding of how cloud adoption enhances productivity, decision-making, and resilience against evolving cyber threats in upstream, midstream, and downstream operations.

WHO SHOULD ATTEND?

This course is designed for professionals in the oil and gas sector, including IT managers, data engineers, cybersecurity specialists, operational technology (OT) teams, and decision-makers responsible for digital transformation initiatives. It is also valuable for consultants, technology providers, and researchers who want to deepen their knowledge of secure cloud-based solutions tailored to industrial environments. Prior familiarity with IT/OT systems or cybersecurity concepts is beneficial but not mandatory.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Understand the role and benefits of cloud-based data infrastructure in oil and gas operations.
- Analyze key cybersecurity threats and defense strategies specific to industrial environments.
- Gain practical knowledge of integrating IoT, edge, and cloud platforms for real-time monitoring and predictive analytics.
- Evaluate regulatory, compliance, and risk management frameworks in a cloud context.
- Develop strategies to implement secure, scalable, and cost-effective cloud solutions for oil and gas enterprises.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Industry-focused case studies on digital oilfields and secure data pipelines.
- Hands-on sessions with cloud and cybersecurity tools tailored to energy operations.
- Insights from real-world attacks and defense mechanisms in OT/IT convergence.
- Emphasis on compliance with industry standards such as NIST, ISO 27001, and IEC 62443.
- Future trends: AI, digital twins, and automation in cloud-secure oil and gas ecosystems.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded