Strategic EPC Project Management in Oil and Gas Training Course

14 - 18 Dec 2026

Kuala Lumpur

5200 € (Per Person)

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Course Introduction / Overview:

The global oil and gas industry operates on a scale of immense complexity, where Engineering, Procurement, and Construction (EPC) projects represent colossal investments and significant risks. This course provides a comprehensive, A-to-Z roadmap for navigating the intricate landscape of EPC project management specifically tailored for the oil and gas sector. Moving beyond theoretical frameworks, this program delves into the practical realities of managing large-scale energy projects from feasibility and front-end engineering design (FEED) to commissioning and handover. As highlighted by project management expert Dr. Paul D. Giammalvo, successful project execution hinges on integrating technical expertise with robust commercial and contractual acumen. This training course, offered by BIG BEN Training Center, is designed to equip participants with the strategic skills needed to control costs, manage schedules, mitigate risks, and lead multi-disciplinary teams effectively. We will explore concepts discussed in seminal works like "Project Management for the Oil and Gas Industry," ensuring a blend of academic rigor and real-world application. Participants will gain the confidence to manage complex stakeholder relationships, navigate challenging contractual negotiations, and deliver projects that meet stringent safety, quality, and performance standards in this dynamic industry.

Target Audience / This training course is suitable for:

- Project Directors and Managers.
- Project Engineers from all disciplines.
- Contracts and Procurement Managers.
- Construction and Commissioning Managers.
- Project Control and Planning Professionals.
- Commercial and Finance Managers involved in projects.
- HSE and Quality Assurance Managers.
- Team Leaders and Supervisors in the energy sector.
- Professionals aspiring to a project management role in oil and gas.

Target Sectors and Industries:

- Upstream Oil and Gas (Exploration and Production).
- Midstream Oil and Gas (Transportation and Storage).
- Downstream Oil and Gas (Refining and Petrochemicals).
- Liquefied Natural Gas (LNG) Plant Construction.
- Engineering and Construction Contractor Companies.
- Energy Infrastructure Development.
- Governmental bodies and regulatory agencies overseeing the energy sector.

Target Organizations Departments:

- Project Management Office (PMO).
- Engineering and Design Departments.
- Procurement and Supply Chain Management.
- Construction Management.
- Contracts and Legal Departments.
- Finance and Commercial Departments.
- Health, Safety, and Environment (HSE) Departments.
- Quality Assurance and Quality Control (QA/QC) Departments.
- Operations and Maintenance Departments.

Course Offerings:

By the end of this course, the participants will have able to:

- Master the complete EPC project lifecycle specific to the oil and gas industry.
- Develop and implement effective Front-End Engineering Design (FEED) strategies.
- Analyze and manage complex EPC contracts, including lump-sum and reimbursable models.
- Execute strategic procurement and global supply chain management for critical equipment.
- Apply advanced project control techniques for cost, schedule, and quality management.
- Lead construction, commissioning, and startup phases with a focus on safety and efficiency.
- Identify, assess, and mitigate the unique risks inherent in oil and gas projects.
- Manage stakeholder expectations and communications across diverse international teams.
- Prepare and defend against contractual claims and manage project closeout effectively.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, immersive, and practical, ensuring that participants can immediately apply their learning in the workplace. We move beyond traditional lectures to create a dynamic learning environment that fosters critical thinking and collaborative problem-solving. The course heavily utilizes real-world case studies of major oil and gas EPC projects, allowing participants to analyze both successful strategies and costly failures. Interactive workshops and group exercises will challenge participants to work in teams to tackle simulated project scenarios, such as developing a risk mitigation plan or negotiating a contract variation. Role-playing sessions will simulate complex stakeholder meetings and claim negotiations, providing a safe space to practice and refine crucial interpersonal skills. The program emphasizes a hands-on approach, with sessions dedicated to building project schedules, analyzing cost reports, and evaluating procurement strategies. Our expert instructors facilitate open discussions, encouraging participants to share their own experiences and challenges, creating a rich peer-to-peer learning experience. Continuous feedback is provided throughout the course to ensure a deep and lasting understanding of strategic EPC project management.

Course Agenda (Course Units):

Unit One: Foundations of EPC Project Management in Oil and Gas

- Introduction to the global oil and gas industry and its project environment.
- Defining the EPC project lifecycle from concept to commissioning.
- Key stakeholders and their roles in oil and gas projects.
- Understanding different EPC contracting models (LSTK, Reimbursable, Hybrid).
- The critical importance of Front-End Loading (FEL) and FEED.
- Project financing and economic evaluation in the energy sector.
- Legal and regulatory frameworks governing oil and gas projects.

Unit Two: Strategic Engineering and Design Management

- The transition from conceptual design to detailed engineering.
- Managing multi-disciplinary engineering teams and interfaces.
- Value engineering and constructability reviews.
- Technology selection and process safety management.
- Developing the project execution plan (PEP).
- Managing design changes and their impact on cost and schedule.
- Introduction to digital tools in engineering (BIM, Digital Twins).

Unit Three: Global Procurement and Supply Chain Leadership

- Developing a strategic procurement and contracting plan.
- Sourcing strategies for long-lead items and critical equipment.
- Vendor pre-qualification, evaluation, and selection.
- Negotiating supply contracts and managing supplier relationships.
- Logistics and transportation management in remote locations.
- Materials management, inspection, and quality control.
- Navigating supply chain risks and disruptions.

Unit Four: Construction, Commissioning, and Handover Excellence

- Construction planning, scheduling, and site management.
- Managing contractors and subcontractors effectively.
- Implementing a robust Health, Safety, and Environment (HSE) culture.
- Quality Assurance and Quality Control (QA/QC) in construction.
- Mechanical completion, pre-commissioning, and commissioning sequences.
- Managing the startup and performance testing phases.
- Formal project handover to the asset owner and operations team.

Unit Five: Advanced Project Controls, Risk, and Contract Administration

- Advanced work breakdown structure (WBS) and scheduling techniques.
- Cost estimating, budgeting, and earned value management (EVM).
- Comprehensive risk identification, analysis, and response planning.
- Managing project interfaces and communication protocols.
- Contract administration and management of change.
- Claims identification, prevention, and resolution strategies.
- Project closeout, final documentation, and lessons learned.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

How will the global energy transition and the rise of digital twins reshape the traditional risk-reward models in lump-sum turnkey EPC contracts for the oil and gas sector?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by offering a uniquely strategic and commercially-focused perspective on EPC project management, specifically contextualized for the high-stakes oil and gas industry. While many courses focus solely on the technical mechanics of project management tools, this program elevates the learning to encompass the critical decision-making processes that determine project success or failure. We emphasize the integration of engineering, procurement, and construction phases, treating them not as silos but as an interconnected system. The curriculum is built around a deep understanding of risk management from a commercial and contractual standpoint, equipping participants to not only identify technical risks but also to structure contracts and strategies that protect project value. Our use of in-depth case studies from recent, large-scale international oil and gas projects provides unparalleled insight into real-world challenges and solutions. The course content moves beyond standard project management body of knowledge to address industry-specific complexities such as managing long-lead international supply chains, navigating volatile commodity prices, and ensuring stringent process safety. It is designed for aspiring leaders, focusing on the strategic acumen required to deliver complex energy infrastructure on time and within budget.