COURSE OVERVIEW DE0923
Petroleum Project Economics & Risk Analysis

Course Title
Petroleum Project Economics & Risk Analysis

Course Date/Venue
February 01-05, 2026/Tamra Meeting Room,
Al Bandar Rotana Creek, Dubai, UAE

Course Reference
DE0923

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Description

This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to provide participants with a detailed and up-to-date overview of Petroleum Project Economics & Risk Analysis. It covers the importance of petroleum project economics and its role in decision-making; the basic principles of economics in petroleum; the petroleum fiscal, time value of money and key performance indicators; the exploration costs, development costs, operating costs and abandonment and decommissioning costs; the price forecasting, break-even analysis and risk analysis and management; and the quantitative and qualitative risks analysis, mitigating risks in petroleum projects and portfolio management.

During this interactive course, participants will learn the contractual and fiscal risks; addressing risks associated with contracts, agreements and changes in government policies; the equity, debt and project finance and the importance of environmental, social and governance (ESG) in project decision-making and financial performance; the economic evaluation of shale oil, shale gas and other unconventional resources; the strategic planning in petroleum, long-term planning and integration of economic evaluation into corporate strategy; and the global energy transition, digitalization and the role of technologies like AI, IoT and data analytics in improving project economics.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain a comprehensive knowledge on petroleum project economics and risk analysis
- Discuss the importance of petroleum project economics and its role in decision-making
- Identify the basic principles of economics in petroleum covering the concepts of supply and demand, price elasticity and economic indicators relevant to the oil and gas industry
- Recognize petroleum fiscal, time value of money and key performance indicators
- Identify the exploration costs, development costs, operating costs and abandonment and decommissioning costs
- Carryout price forecasting, break-even analysis and risk analysis and management
- Employ quantitative and qualitative risks analysis, mitigating risks in petroleum projects and portfolio management
- Recognize contractual and fiscal risks and address risks associated with contracts, agreements and changes in government policies
- Discuss equity, debt and project finance including the importance of environmental, social and governance (ESG) in project decision-making and financial performance
- Apply economic evaluation of shale oil, shale gas and other unconventional resources
- Carryout strategic planning in petroleum, long-term planning and integration of economic evaluation into corporate strategy
- Determine global energy transition, digitalization and the role of technologies like AI, IoT and data analytics in improving project economics

Who Should Attend

This course provides an overview of all significant aspects and considerations of petroleum project economics and risk analysis for petroleum engineers, geologists and geoscientists, financial analysts, project managers, energy consultants, business development professionals, entrepreneurs and investors.

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Haward's certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Fee

US$ 8,000 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Instructor

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Dr. Chris Kapetan, PhD, MSc, is a **Senior Drilling & Petroleum Engineer** with over **30 years** of international experience within the **onshore** and **offshore oil** & **gas** industry. His wide experience covers **Horizontal & Multilateral Wells**, **Well Completion & Stimulation**, **Artificial Lift System Selection & Design**, **Drilling Practices**, **Drilling Fluids Technology**, Drilling **Operations**, **Directional** Drilling**, Formation Damage** Evaluation & Preventive, **Formation Damage** Remediation, **Drilling & Formation Damage**, Simulation Program for The **International Petroleum Business**, **Well** Testing & Analysis, **Well** Design, **Well** Testing & Oil Well Performance, **Well** Test Design Analysis, **Well Test** Operations, **Well Testing & Perforation**, Root Cause Analysis (**RCA**), RCA Method for Process Plant, **RCA** Techniques, Control Well-Flow Lines Parameters, Decision Analytic Modelling Methods for **Economic Evaluation**, **Probabilistic Risk Analysis** (**Monte Carlo Simulator**) **Risk Analysis** Foundations, Sulphur, Sour Natural Gas, **Natural Gas Sweeting**, **Petroleum Production**, Field Layout, **Production** Techniques & Control, **Surface Production** Operations, **Project Risk Analysis**, **Feasibility Analysis** Techniques, **Capital Operational Costs**, **Flowmetering & Custody Transfer** and **Oil Refinery**. Further, he is also well-versed in Enhanced Oil Recovery (**EOR**), Electrical Submersible Pumps (**ESP**), **Oil Industries Orientation**, **Geophysics**, **Cased Hole** Formation Evaluation, **Cased Hole** Applications, **Cased Hole** Logs, **Production Wells** Operations, **Production Facilities** Management, **Perforating** Methods & Design, **Perforating** Operations, **Fishing** Operations, **Well & Reservoir** Testing, **Reservoir** Stimulation, **Hydraulic Fracturing**, **Carbonate** Acidizing, **Sandstone** Acidizing, **Drilling Fluids** Technology, Drilling Operations, **Directional** Drilling, **Artificial Lift**, **Gas Lift Design**, **Gas Lift** Operations, Petroleum Business, **Petroleum Economics**, **Field Development** Planning, **Gas Lift Valve** Changing & Installation, **Well Completion** Design & Operation, **Well** Surveillance, **Well** Testing, **Well** Stimulation & Control and **Workover** Planning, Completions & Workover, **Rig Sizing**, **Hole Cleaning & Logging**, **Well Completion**, **Servicing & Work-Over** Operations, Practical **Reservoir Engineering**, **X-mas Tree & Wellhead** Operations, Maintenance & Testing, Advanced **Petrophysics/Interpretation** of **Well Composite**, **Construction Integrity** & **Completion**, **Coiled Tubing** Technology, **Corrosion Control**, **Slickline**, **Wireline & Coil Tubing**, **Pipeline Pigging**, **Corrosion** Monitoring, **Cathodic Protection** as well as Root Cause Analysis (**RCA**), Root Cause Failure Analysis (**RCFA**), **Gas Conditioning & Process Technology**, **Production Safety** and **Delusion of Asphalt**. Currently, he is the **Operations Consultant** & the **Technical Advisor** at **GEOTECH** and an independent **Drilling Operations Consultant** of various engineering services providers to the international clients as he offers his expertise in many areas of the **drilling & petroleum discipline** and is well **recognized & respected** for his process and procedural expertise as well as ongoing participation, interest and experience in continuing to promote technology to producers around the world.

Throughout his long career life, Dr. Chris has worked for many international companies and has spent several years **managing** technically **complex wellbore interventions** in both **drilling** & **servicing**. He is a **well-regarded** for his **process** and **procedural expertise**. Further, he was the **Operations Manager** at **ETP Crude Oil Pipeline Services** where he was fully responsible for optimum operations of crude oil pipeline, **workover** and **directional drilling**, **drilling rigs** and equipment, drilling of various geothermal deep wells and **exploration wells**. Dr. Chris was the **Drilling** & **Workover Manager** & **Superintendent** for **Kavala Oil** wherein he was responsible for supervision of **drilling** operations and **offshore exploration**, quality control of performance of **rigs**, **coiled tubing**, **crude oil** transportation via pipeline and abandonment of **well** as per the API requirements. He had occupied various key positions as the **Drilling Operations Consultant**, **Site Manager**, **Branch Manager**, **Senior Drilling** & **Workover Manager** & **Engineer**, **Drilling** & **Workover Engineer**, **Process Engineer**, **Operations Consultant** and **Technical Advisor** in several petroleum companies responsible mainly on an **offshore** sour oil field (under water flood and gas lift) and a gas field. Further, Dr. Chris has been a **Professor** of the **Oil Technology College**.

Dr. Chris has **PhD** in **Reservoir Engineering** and a **Master's** degree in **Drilling & Production Engineering** from the **Petrol-Gaze Din Ploiesti University**. Further, he is a **Certified Surfaced BOP Stack Supervisor** of **IWCF**, a **Certified Instructor/Trainer**, a **Certified Trainer/Assessor/Internal Verifier** by the **Institute of Leadership & Management** (**ILM**) and has conducted numerous short courses, seminars and workshops and has published several technical books on **Production Logging**, **Safety Drilling Rigs** and **Oil Reservoir**.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: ***Sunday, 01st of February 2026***

0730 – 0745	*Registration & Coffee*
0745 – 0800	*Welcome & Introduction*
0800 – 0815	***PRE-TEST***
0815 – 0845	***Course Overview & Objectives*** *Introduction to the Importance of Petroleum Project Economics & its Role in Decision-Making*
0845 – 0930	***Historical Perspective*** *Overview of Petroleum Economics from the Past to Present, Major Events & their Implications*
0930 – 0945	*Break*
0945 – 1130	***Basic Principles of Economics in Petroleum*** *Concepts of Supply & Demand, Price Elasticity & Economic Indicators Relevant to the Oil & Gas Industry*
1130 – 1230	***Petroleum Fiscal Systems*** *Introduction to Tax Royalties, Production Sharing Agreements & Service Contracts*
1230 – 1245	*Break*
1245 – 1330	***Time Value of Money*** *Understanding Discount Rates, Net Present Value (NPV) & the Significance of Future Cash Flows*
1330 - 1420	***Key Performance Indicators*** *Overview of NPV, Internal Rate of Return (IRR), Payback Period & Profitability Index*
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2: ***Monday, 02nd of February 2026***

0730 – 0830	***Exploration Costs*** *Costs Associated with Locating Reserves, including Seismic & Drilling Costs*
0830 – 0930	***Development Costs*** *Expenditures Related to Preparing Reserves for Production*
0930 – 0945	*Break*

0945 – 1115	***Operating Costs*** *Costs to Produce, Maintain & Transport Petroleum*
1115 – 1230	***Abandonment & Decommissioning Costs*** *The Financial and Environmental Costs Associated with Closing a Project*
1230 – 1245	*Break*
1245 – 1330	***Price Forecasting*** *Techniques & Challenges of Predicting Future Petroleum Prices*
1330 - 1420	***Break-even Analysis*** *Determining the Minimum Oil or Gas Price Required for a Project to be Economically Viable*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3: ***Tuesday, 03rd of February 2026***

0730 – 0830	***Introduction to Risk & Uncertainty*** *Definitions, Distinctions & its Significance in Petroleum Projects*
0830 – 0930	***Quantitative Risk Analysis*** *Techniques like Monte Carlo Simulation, Sensitivity Analysis & Decision Trees*
0930 – 0945	*Break*
0945 – 1115	***Qualitative Risk Analysis*** *SWOT Analysis, Expert Judgment & Scenario Planning*
1115 – 1230	***Mitigating Risks in Petroleum Projects*** *Strategies to Minimize Exposure to Price Volatility, Geopolitical Risks, Etc.*
1230 – 1245	*Break*
1245 – 1330	***Portfolio Management in Petroleum*** *Diversifying Assets & Projects to Minimize Risk & Maximize Return*
1330 - 1420	***Contractual & Fiscal Risks*** *Addressing Risks Associated with Contracts, Agreements & Changes in Government Policies*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4: ***Wednesday, 04th of February 2026***

0730 – 0830	***Financing Petroleum Projects*** *Understanding Equity, Debt & Project Finance*
0830 – 0930	***Environmental, Social & Governance (ESG) Factors*** *Importance of ESG in Project Decision-Making & Financial Performance*
0930 – 0945	*Break*
0945 – 1115	***Economic Evaluation of Unconventional Resources*** *Economics of Shale Oil, Shale Gas & Other Unconventional Resources*
1115 – 1230	***Strategic Planning in Petroleum*** *Long-Term Planning, Integration of Economic Evaluation into Corporate Strategy*
1230 – 1245	*Break*
1245 – 1330	***Global Energy Transition & its Impacts*** *Shift to Renewables & the Role of Oil & Gas in the Future Energy Mix*
1330 - 1420	***Digitalization & its Economic Impact*** *Role of Technologies like AI, IoT & Data Analytics in Improving Project Economics*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5: ***Thursday, 05th of February 2026***

0730 – 0830	***Field Development Decision Case Study*** *An In-Depth Look at the Economic Factors Behind a Decision to Develop a Field*
0830 – 0930	***Economic Evaluation of a Mega Project*** *Detailed Financial & Risk Analysis of a Large-Scale Petroleum Project*
0930 – 0945	*Break*
0945 – 1130	***Downstream Project Economics Case Study*** *Economics of Refining, Transportation & Retailing*
1130 – 1230	***Petroleum Project in a Politically Unstable Region*** *Addressing Geopolitical Risks & Strategies to Manage them*
1230 – 1245	*Break*
1245 – 1315	***Innovation & Technology's Impact on Project Economics*** *Case Study of a Project that Significantly Benefited from a Technological Breakthrough*
1315 - 1345	***Wrap-up & Future Trends*** *Summarizing Key Learnings & Discussing Upcoming Trends & Challenges in Petroleum Project Economics*
1345 - 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

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