COURSE OVERVIEW TM1111
Basic Petroleum Economics

Course Title
Basic Petroleum Economics

Course Date/Venue
Please see page 3

Course Reference
TM1111

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

Course Description

This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course is designed to provide participants with a detailed and up-to-date overview of Basic Petroleum Economics. It covers the economic principles in petroleum and economic decision-making processes; the major oil and gas producers, supply chain in the petroleum industry and the role of OPEC and Non-OPEC countries; the supply and demand in the oil market, price formation mechanisms, key factors affecting oil prices and petroleum market dynamics; the economic indicators for petroleum industry, types of petroleum reserves and regulatory environment; and the time value of money in petroleum projects, capital budgeting in petroleum projects and cash flow analysis for petroleum projects.

Further, the course will also discuss the financial ratios in petroleum economics, economic evaluation of oil and gas fields and risk and uncertainty in petroleum economics; the project feasibility studies, feasibility study framework, valuation methods for oil and gas projects and reserve valuation; the production sharing agreements (PSA) and their economics, cost recovery mechanisms and economic implications of production and development decisions; and the petroleum price forecasting and supply chain and transportation economics.

During this interactive course, participants will learn the trading and hedging in petroleum markets and economic analysis of refining and marketing; the geopolitical factors affecting petroleum markets including environmental economics and carbon pricing; the corporate strategy in the petroleum industry and sustainability and the future of petroleum; the role of technology in petroleum economics and petroleum economics in emerging markets; the economic impact of oil spill and environmental incidents; and the future economic trends in the global petroleum market.

Course Objectives

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

- Appy and gain a basic knowledge on petroleum economics
- Discuss economic principles in petroleum and economic decision-making processes
- Identify the major oil and gas producers, supply chain in the petroleum industry and the role of OPEC and Non-OPEC countries
- Explain supply and demand in the oil market, price formation mechanisms, key factors affecting oil prices and petroleum market dynamics
- Recognize economic indicators for petroleum industry, types of petroleum reserves and regulatory environment
- Apply time value of money in petroleum projects, capital budgeting in petroleum projects and cash flow analysis for petroleum projects
- Discuss financial ratios in petroleum economics, economic evaluation of oil and gas fields and risk and uncertainty in petroleum economics
- Review project feasibility studies and apply feasibility study framework, valuation methods for oil and gas projects and reserve valuation
- Discuss production sharing agreements (PSA) and their economics, cost recovery mechanisms and economic implications of production and development decisions
- Employ petroleum price forecasting and discuss supply chain and transportation economics
- Describe trading and hedging in petroleum markets and apply economic analysis of refining and marketing
- Identify the geopolitical factors affecting petroleum markets including environmental economics and carbon pricing
- Apply corporate strategy in the petroleum industry and discuss sustainability and the future of petroleum
- Recognize the role of technology in petroleum economics and petroleum economics in emerging markets
- Identify economic impact of oil spill and environmental incidents and the future economic trends in the global petroleum market

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**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of basic petroleum economics for reservoir engineers, geoscientists, petroleum & financial controllers, contracts engineers and those who are involved in making economic and financial decisions for the company.

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 Date/Venue

Session(s)	Date	Venue
1	June 22-26, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai UAE
2	August 18-22, 2025	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
3	October 26-30, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai UAE
4	November 24-28, 2025	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Accommodation

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

Course Fee

US$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

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

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**. 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 Instructor(s)

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:

Mr. Konstantin Zorbalas, MSc, BSc, is a **Senior Petroleum Engineer & Well Completions Specialist** with over **25 years** of **offshore** and **onshore** experience in the **Drilling Techniques**, **Hole Cleaning**, **Sloughing**, **Nozzle Selection**, **BOP Equipment**, **Seepage Losses Control**, **Well Completion Design**, **Well testing**, **Well Testing Analysis**, **Well Cementing**, **Oil** & **Gas**, **Refinery** & **Petrochemical** industries. His wide expertise includes **Workovers & Completions**, **Petroleum Risk & Decision Analysis**, **Acidizing Application** in **Sandstone** & **Carbonate**, **Stimulation Operations**, **Reserves Evaluation**, **Reservoir Fluid Properties**, **Reservoir Engineering & Simulation Studies**, **Reservoir Monitoring**, **Artificial Lift Design**, **Gas Operations**, **Workover/Remedial Operations** & **Heavy Oil Technology**, **Applied Water Technology**, **Oil & Gas Production**, **X-mas Tree** & **Wellhead Operations** & **Testing**, **Artificial Lift Systems** (**Gas Lift**, **ESP**, and **Rod Pumping**), **Production Optimization**, **Sand Control**, **PLT Correlation**, **Slickline Operations**, **Acid Stimulation**, **Production Logging**, **Project Evaluation** & **Economic Analysis**. Further, he is actively involved in **Project Management** with special emphasis in production technology and field optimization, economic analysis with risk assessment and field development planning. He is currently the **Senior Petroleum Engineer & Consultant** of **National Oil Company** wherein he is involved in the mega-mature fields in the Arabian Gulf, predominantly carbonate reservoirs; designing the acid stimulation treatments with post-drilling rigless operations; utilizing CT with tractors and DTS systems; and he is responsible for gas production and preparing for reservoir engineering and simulation studies, well testing activities, field and reservoir monitoring, production logging and optimization and well completion design.

During his career life, Mr. Zorbalas worked as a **Senior Production Engineer**, **Well Completion Specialist**, **Production Manager**, **Project Manager**, **Technical Manager**, **Technical Supervisor** & **Contracts Manager**, **Production Engineer**, **Production Supervisor**, **Production Technologist**, **Technical Specialist**, **Business Development Analyst**, **Field Production Engineer** and **Field Engineer**. He worked for many **world-class oil/gas companies** such as **ZADCO**, **ADMA-OPCO**, **Oilfield International Ltd**, **Burlington Resources** (later acquired by **Conoco Phillips**), **MOBIL E&P**, **Saudi Aramco**, **Pluspetrol E&P SA**, **Wintershall**, **Taylor Energy**, **Schlumberger**, **Rowan Drilling** and **Yukos EP** where he was in-charge of the **design and technical analysis** of a gas plant with capacity **1.8 billion m3/yr gas**. His achievements include **boosting oil production 17.2% per year** since 1999 using **ESP** and **Gas Lift systems**.

Mr. Zorbalas has **Master** and **Bachelor** degrees in **Petroleum Engineering** from the **Mississippi State University**, **USA**. Further, he is an **SPE Certified Petroleum Engineer**, **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**), an active member of the Society of Petroleum Engineers (**SPE**) and has numerous scientific and technical publications and delivered innumerable training courses, seminars and workshops worldwide.

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

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Introduction to Petroleum Economics*** *Definition & Scope • Role in the Energy Sector • Economic Principles in Petroleum • Economic Decision-Making Processes*
0930 - 0945	*Break*
0945 – 1030	***Global Petroleum Industry Overview*** *Major Oil & Gas Producers • Supply Chain in the Petroleum Industry • Role of OPEC & Non-OPEC Countries • Industry Structure: Upstream, Midstream & Downstream*
1030 – 1130	***Petroleum Market*** *Supply & Demand in the Oil Market • Price Formation Mechanisms • Key Factors Affecting Oil Prices • Petroleum Market Dynamics*
1130 - 1230	***Economic Indicators for Petroleum Industry*** *Crude Oil Price Benchmarks • Economic Growth & Its Impact on Demand • Geopolitical Risk & Its Effect on Oil Prices • Exchange Rates & Their Significance in Oil Trade*
1230 - 1245	*Break*
1245 – 1330	***Types of Petroleum Reserves*** *Proven, Probable & Possible Reserves • Role of Reserves in Valuation • Reserve Life & Depletion Curves • Technological Advancements & Reserve Growth*
1330 - 1420	***Regulatory Environment*** *Role of Governments in the Petroleum Sector • Environmental Regulations • Taxation & Royalties • Local Content Policies & Their Impact*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day One*

Day 2

0730 – 0830	***Time Value of Money in Petroleum Projects*** *Present Value vs. Future Value • Discount Rate Selection • Net Present Value (NPV) • Internal Rate of Return (IRR)*
0830 – 0930	***Capital Budgeting in Petroleum Projects*** *Types of Capital Expenditures • Budgeting for Exploration, Development & Production • Cost Estimation Techniques • Economic Feasibility Studies*
0930 - 0945	*Break*
0945 – 1100	***Cash Flow Analysis for Petroleum Projects*** *Revenue Streams in Oil & Gas Projects • Operating Costs & Capital Expenditures • Profitability Indicators • Cash Flow Projections*

1100 – 1230	***Financial Ratios in Petroleum Economics*** *Return on Investment (ROI) • Payback Period • Debt-to-Equity Ratio • Profit Margin Analysis*
1230 - 1245	*Break*
1245 – 1330	***Economic Evaluation of Oil & Gas Fields*** *Methods of Field Valuation • Cost & Revenue Modeling • Scenario Analysis & Sensitivity Analysis • Break-Even Analysis*
1330 – 1420	***Risk & Uncertainty in Petroleum Economics*** *Identifying Risks in Exploration & Production • Quantifying & Managing Risk • Monte Carlo Simulation for Petroleum Projects • Hedging Strategies in Volatile Markets*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Two*

Day 3

0730 – 0830	***Project Feasibility Studies*** *Feasibility Study Framework • Technical, Financial & Market Feasibility • Data Requirements for Feasibility Analysis • Stakeholder Involvement*
0830 – 0930	***Valuation Methods for Oil & Gas Projects*** *Discounted Cash Flow (DCF) Analysis • Comparable Company Analysis (CCA) • Precedent Transactions Method • Option Pricing Model*
0930 - 0945	*Break*
0945 – 1100	***Reserve Valuation*** *Methods of Reserve Estimation • Impact of Reserves on Project Valuation • Risk-Adjusted Valuation Models • Life Cycle Analysis of Reserves*
1100 – 1230	***Production Sharing Agreements (PSA) & Their Economics*** *Structure & Terms of PSAs • Government Take in PSAs • Profit Oil & Cost Oil • Negotiating PSAs & Fiscal Terms*
1230 - 1245	*Break*
1245 – 1330	***Cost Recovery Mechanisms*** *Exploration & Development Cost Recovery • Production Cost Recovery • Financial Reporting & Taxation Impacts • International Differences in Cost Recovery Practices*
1330 – 1420	***Economic Implications of Production & Development Decisions*** *Operational Decision-Making in Petroleum Projects • Impact of Technology on Development Costs • Resource Development Strategies • Impact of Market Conditions on Project Viability*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Three*

Day 4

0730 – 0830	***Petroleum Price Forecasting*** *Methods for Forecasting Oil Prices • Factors Influencing Price Predictions • Impact of Supply-Demand Models on Price Forecasts • Role of Global Inventories in Price Setting*
0830 – 0930	***Supply Chain & Transportation Economics*** *Pipeline & Shipping Economics • Transportation Costs & Logistics • Storage & Refining Considerations • Impact of Infrastructure on Market Pricing*
0930 - 0945	*Break*
0945 – 1100	***Trading & Hedging in Petroleum Markets*** *Basics of Oil Trading • Hedging Instruments & Strategies • Futures, Options & Forward Contracts • Risk Management for Oil Companies*
1100 – 1230	***Economic Analysis of Refining & Marketing*** *Refining Margins & Profitability • Economies of Scale in Refining • Market Dynamics of Refined Products • Pricing Mechanisms for Refined Products*
1230 - 1245	*Break*
1245 – 1330	***Geopolitical Factors Affecting Petroleum Markets*** *Political Instability & Its Economic Impact • Trade Wars & Sanctions • Strategic Reserves & Market Manipulation • OPEC & Non-OPEC Coordination*
1330 – 1420	***Environmental Economics & Carbon Pricing*** *Carbon Tax Implications on the Petroleum Sector • Environmental Regulations & Their Impact on Profitability • Emission Reduction Strategies • Future Economic Outlook for Carbon-Based Fuels*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Four*

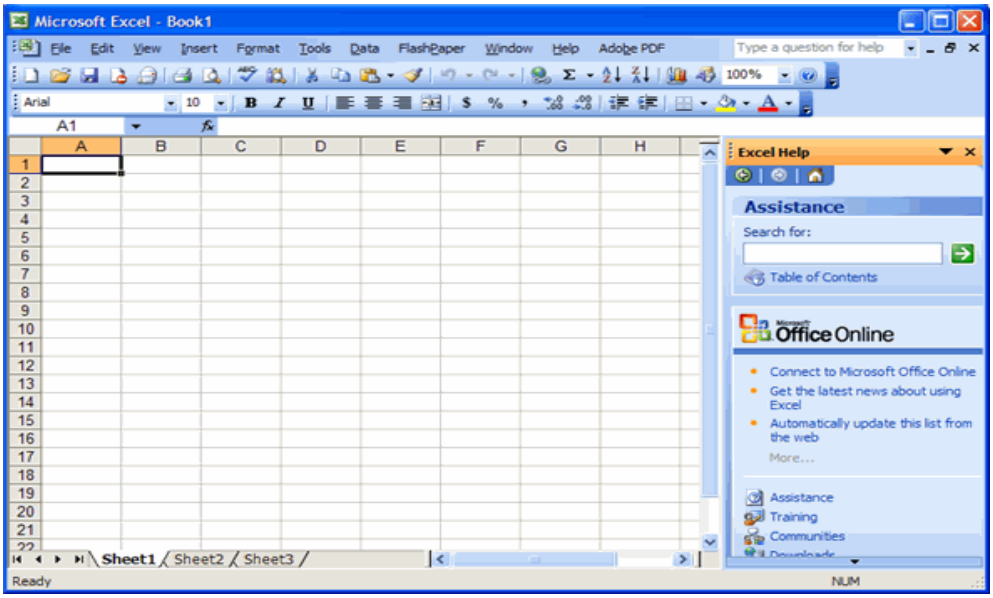
Day 5

0730 – 0830	***Corporate Strategy in the Petroleum Industry*** *Mergers, Acquisitions & Joint Ventures • Divestitures & Strategic Partnerships • Portfolio Management • Competitive Positioning*
0830 – 0930	***Sustainability & The Future of Petroleum*** *Transition to Cleaner Energy • Economic Impacts of Renewable Energy Adoption • Carbon Capture & Storage (CCS) Technologies • Long-Term Outlook for Fossil Fuels*
0930 - 0945	*Break*
0945 – 1100	***Role of Technology in Petroleum Economics*** *Technological Innovations in Exploration • Advanced Drilling Techniques (e.g., Horizontal Drilling, Fracking) • Automation & Digitalization in the Oil Sector • Impact of Technology on Cost Reduction*
1100 – 1230	***Petroleum Economics in Emerging Markets*** *Oil & Gas Development in Developing Economies • Challenges & Opportunities in Emerging Markets • Policy Considerations for New Producers • Role of State-Owned Companies in Emerging Markets*
1230 - 1245	*Break*

1245 – 1315	***Economic Impact of Oil Spill & Environmental Incidents*** *Direct Costs of Environmental Disasters • Legal & Reputational Risks • Mitigation Strategies & Insurance • Long-Term Economic Effects on the Industry*
1315 - 1345	***Future Economic Trends in the Global Petroleum Market*** *Shifts in Demand Due to Electric Vehicles & Alternative Energy • Strategic Responses by Oil Majors • Energy Transition Pathways • Future Role of Oil & Gas in the Global Energy Mix*
1345 - 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using "MS Excel".



MS Excel

Course Coordinator

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