COURSE OVERVIEW DE1158
Advanced Project Economics, Risk & Decision Analysis

Course Title
Advanced Project Economics, Risk & Decision Analysis

Course Date/Venue
October 11-15, 2026/TBA Meeting Room, Meeting Room A, Centro Corniche Al Khobar by Rotana, Al Khobar, KSA

Course Reference
DE1158

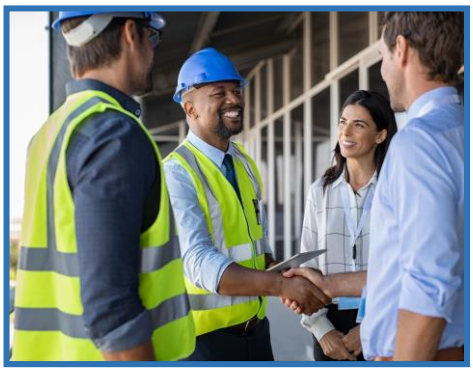
Course Duration/Credits
Five Days/3.0 CEUs/30 PDHs

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 Advanced Oil & Gas Project Economics, Risk & Decision Analysis. It covers the development economics, uncertainty in investments, risks and uncertainties; setting-up spreadsheet calculations using Excel and handling uncertainty in petroleum projects; the different economic terms used in the oil and gas industry; the expected value concept and its impact on decision tree analysis; the economic evaluation of oil and gas projects; quantifying project costs and benefits; assessing and quantifying risks in oil and gas projects; the risk mitigation and contingency planning; and managing project risk throughout the project lifecycle.

During this interactive course, participants will learn the decision analysis techniques; the capital budgeting, project cash flows and capital expenditures; the project financing process and the types of project financing available for oil and gas projects; the importance of financial risk management in project financing; the strategies for structuring and negotiating project financing; the oil and gas investment opportunities, portfolio management and project portfolios; evaluating the performance of oil and gas projects; and improving project, performance, effectiveness, continuous improvement and optimization of oil and gas projects.



Course Objectives/Outcomes & Benefits for the Participants

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

- Apply and gain an advanced knowledge on oil and gas project economics, risk and decision analysis
- Recognize development economics, uncertainty in investments, risks and uncertainties
- Set-up spreadsheet calculations using Excel and handle uncertainty in petroleum projects
- Discuss the different economic terms used in the oil and gas industry including the expected value concept and its impact on decision tree analysis
- Carryout economic evaluation of oil and gas projects as well as identify and quantify project costs and benefits
- Identify, assess and quantify risks in oil and gas projects, apply risk mitigation and contingency planning and manage project risk throughout the project lifecycle
- Carryout decision analysis techniques and incorporate these techniques into oil and gas project economics and risk management
- Apply capital budgeting, estimate project cash flows and capital expenditures and evaluate and select capital projects
- Illustrate project financing process and identify the types of project financing available for oil and gas projects
- Discuss the importance of financial risk management in project financing and strategies for structuring and negotiating project financing
- Analyze oil and gas investment opportunities, apply portfolio management, analyze and manage project portfolios and optimize project portfolios
- Evaluate the performance of oil and gas projects, improve project performance and effectiveness and apply continuous improvement and optimization of oil and gas projects

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

The course provides an overview of all significant aspects and considerations of advanced oil and gas project economics, risk and decision analysis for oil and gas project managers, energy economists, financial analysts and investment managers, energy sector consultants, petroleum engineers and geoscientists and planning team.

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.

Accommodation

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

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 **30 years** of **offshore** and **onshore** experience in the **Oil** & **Gas**, **Refinery** & **Petroleum** industries. His wide expertise includes **OIP Estimation & Range** of **Uncertainty**, **Waterflood** Management, **Water Flooding**, **Water Flooding & Reservoir** Sourcing Issues, **Water Flooding**, **Reservoir** Souring & Water Breakthrough, **Well & Reservoir Management** and Monitoring, **Fishing Operations**, **Drilling & Work-Over Operations**, **Workover Best Practices**, Well Testing, Completion Design & Operation, Well Stimulation and **Workover**, **Well Stimulation & Workover** Planning, **Well Completion**, **Servicing & Work-Over** Operations, **Completions & Workover**, HSE in **Work-Over & Drilling** Operations, **Well Testing Completion & Workover**, Basic **Drilling**, **Completion & Workover** Operations, Advanced **Drilling**, **Completion & Workovers Fluids**, **Cementing** Integrity Evaluation, **Cementing** Design, **Cement** Integrity Assurance & Evaluation, Basic **Cementing** (Operations) & Basic Acidizing, **Advanced** Cementing Technology, **Casing & Cementing, Advanced** Cementing & Stimulation, **Artificial Lift** Systems, New Technology in **Artificial Lift Systems**, **Artificial Lift** Methods, **Crude Oil Artificial Lift** Operations, **Artificial Lift** Systems, **Artificial Lift** & Challenges, **Artificial Lift** Systems & Optimization Technology, Production Optimization with **Artificial Lift** System, **Well Integrity & Artificial Lift**, **Formation Damage** & Flow Assurance Issues, **Formation Damage** Evaluation, Prevention, Remediation & Control, **Formation Damage** (Causes, Prevention & Remediation), **Well Completion** Design & Operations, Crude **Oil Market**, Oil **Reserves**, Global Oil **Supply & Demand**, Government Legislation & Oil **Contractual** Agreements, Oil **Projects & Their Feasibility** (Revenue and Profitability), Oil & Gas **Exploration** and **Methods**, Oil & Gas **Extraction**, Oil **Production & Refining**, Technology Usage in Industrial Security; **Oil & Gas Economics** Modelling Evaluation Decision Making & Risk Analysis, **Economic Evaluation** & Global Profitability Criteria, **Petroleum Economics**, Fluid Properties & Phase Behaviour (**PVT**), **Workovers & Completions**, Acidizing Application in **Sandstone & Carbonate**, **Well Testing** Analysis, **Reserves** Evaluation, **Reservoir** Fluid Properties, **Reservoir** Monitoring, **Heavy Oil** Technology, Applied **Water Technology**, **X-mas Tree & Wellhead** Operations & Testing, **Artificial Lift** Systems (**Gas Lift**, **ESP**, and **Rod Pumping**), **Well Cementing**, **Well Completion** Design, **Slickline** Operations, **Cased Hole Logging** and **Production Logging**. Further, he is actively involved in **Project Management** with special emphasis in production technology and field optimization, performing conceptual studies, economic analysis with risk assessment and field development planning. He is currently the **Senior Petroleum Engineer & Consultant** of **Abu Dhabi National Oil Company** (**ADNOC**) Group of companies 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**, **Trainer**, **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's** and **Bachelor's** 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.

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.

Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

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 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, 11th of October 2026***

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Introduction to Oil & Gas Project Economics*** *Definition of Oil & Gas Project Economics, Risk & Decision Analysis • The Importance of Project Economics, Risk & Decision Analysis in the Oil & Gas Industry • Overview of the Project Economics, Risk & Decision Analysis Process & Requirements • Advanced Techniques in Decision Analysis, Risk Assessment & Economical Studies of Petroleum Projects*
0930 – 0945	*Break*
0945- 1100	***Economic Evaluation of Oil & Gas Projects*** *The Economic Evaluation Process • Different Economic Terms used in the Oil & Gas Industry • Types of Economic Models & their Application to Oil & Gas Projects*
1100 - 1230	***Economic Evaluation of Oil & Gas Projects (cont'd)*** *Identifying & Quantifying Project Costs & Benefits • Importance of Time Value of Money & Discounting in Economic Evaluation*
1230 – 1245	*Break*
1245 – 1420	***Economic Evaluation of Oil & Gas Projects (cont'd)*** *Development Economics, Uncertainty in Investment, Risk & Uncertainties, Setting-up Spreadsheets Calculations using Excel, Practical use of the Risks Add-on: Oil Field Development Mod*
1420 - 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2:	Monday, 12th of October 2026
0730 – 0930	***Risk Management in Oil & Gas Projects*** *Risk Management Process • Techniques for Identifying, Assessing & Quantifying Risks in Oil & Gas Projects*
0930 - 0945	*Break*
0945 – 1100	***Risk Management in Oil & Gas Projects (cont'd)*** *Importance of Risk Mitigation & Contingency Planning • Strategies for Managing Project Risk Throughout the Project Lifecycle*
1100 – 1230	***Decision Analysis Techniques for Oil & Gas Projects*** *Decision Analysis Techniques • Importance of Decision-Making under Uncertainly• How to Handle Uncertainty in Petroleum Projects • The Expected Value Concept & Learn Its Impact on Decision Tree Analysis*
1230 – 1245	*Break*
1245 – 1420	***Decision Analysis Techniques for Oil & Gas Projects (cont'd)*** *Techniques for Decision Tree Analysis, Monte Carlo Simulation & Real Options Analysis• Strategies for Incorporating Decision Analysis Techniques into Oil & Gas Project Economics & Risk Management*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3:	Tuesday, 13th of October 2026
0730 – 0930	***Capital Budgeting in Oil & Gas Projects*** *Capital Budgeting Process • Importance of Capital Budgeting in Oil & Gas Projects*
0930 – 0945	*Break*
0945- 1100	***Capital Budgeting in Oil & Gas Projects (Cont'd)*** *Techniques for Estimating Project Cash Flows & Capital Expenditures • Strategies for Evaluating & Selecting Capital Projects*
1100 - 1230	***Project Financing in Oil & Gas Projects*** *Project Financing Process • Types of Project Financing Available for Oil & Gas Projects*
1230 – 1245	*Break*
1245 – 1420	***Project Financing in Oil & Gas Projects (cont'd)*** *Importance of Financial Risk Management in Project Financing • Strategies for Structuring & Negotiating Project Financing*
1420 - 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4:	Wednesday, 14th of October 2026
0730 – 0930	***Investment Analysis in Oil & Gas Projects*** *Investment Analysis Process • Techniques for Analyzing Oil & Gas Investment Opportunities*
0930 – 0945	*Break*
0945- 1100	***Investment Analysis in Oil & Gas Projects (cont'd)*** *Importance of Market & Competitive Analysis in Investment Analysis • Strategies for Evaluating & Selecting Oil & Gas Investment Opportunities*
1100 - 1230	***Portfolio Management in Oil & Gas Projects*** *Portfolio Management Process • Importance of Portfolio Management in Oil & Gas Projects*
1230 – 1245	*Break*

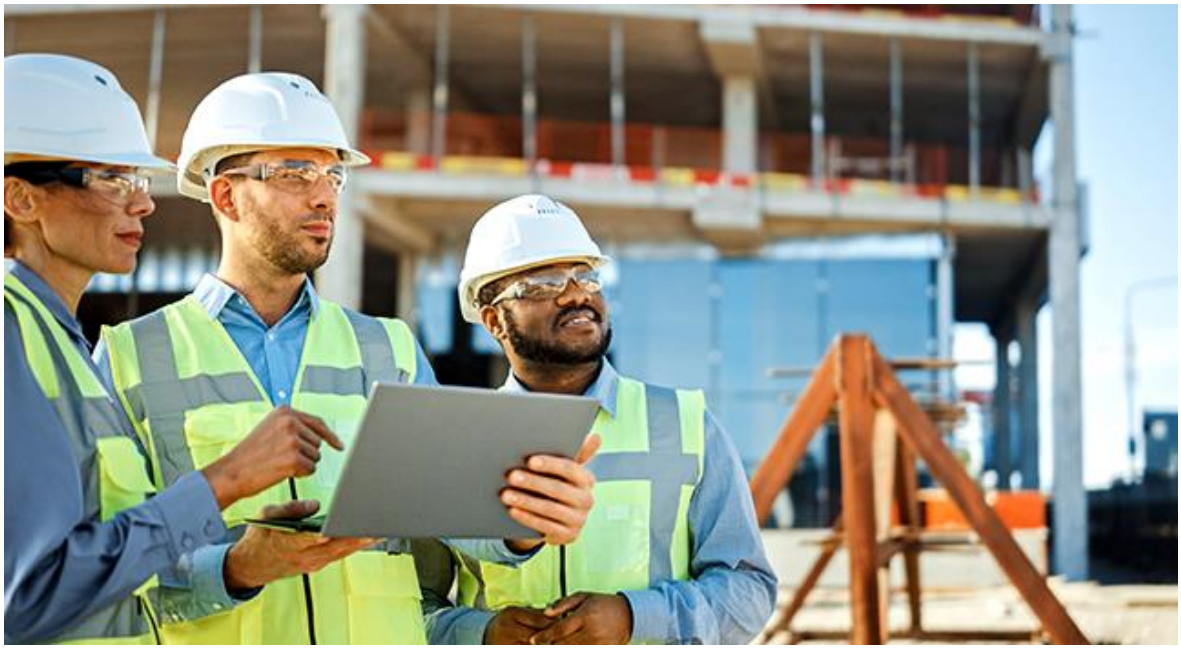
1245 – 1420	***Portfolio Management in Oil & Gas Projects (cont'd)*** *Techniques for Analyzing & Managing Project Portfolios • Strategies for Optimizing Project Portfolios*
1420 - 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5: ***Thursday, 15th of October 2026***

0730 – 0930	***Performance Evaluation & Improvement in Oil & Gas Projects*** *Techniques for Evaluating the Performance of Oil & Gas Projects*
0930 – 0945	*Break*
0945 – 1100	***Performance Evaluation & Improvement in Oil & Gas Projects (cont'd)*** *Importance of Performance Metrics & Key Performance Indicators (KPIs)*
1100 – 1230	***Performance Evaluation & Improvement in Oil & Gas Projects (cont'd)*** *Strategies for Improving Project Performance & Effectiveness*
1230 – 1245	*Break*
1245 - 1345	***Performance Evaluation & Improvement in Oil & Gas Projects (cont'd)*** *Importance of Continuous Improvement & Optimization of Oil & Gas Projects*
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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