

## COURSE OVERVIEW DE1048 E&P Analysis, Prospect Evaluation & Exploration Economics

## <u>Course Title</u>

E&P Analysis, Prospect Evaluation & Exploration Economics

## Course Date/Venue

Session 1: May 25-29, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar Session 2: October 19-23, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar

Course Reference DE1048

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

## Course Description









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### 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 E&P risk analysis, prospect evaluation and exploration economics. It covers the importance of economic and risk analysis including demand, supply and the market; the oil price in short term and long term; the fundamentals of oil and gas hedging; the sequence of events of a new discovery; the exploration economics and reservoir drive mechanisms; the reserve estimation and decline curve analysis; and the production profile, revenue, costs and profit and time value of money.

During this interactive course, participants will learn the net present value, internal rate of return and pay out time; the profit/investment ratio, oil agreements and economic models and spreadsheet design; the risk and uncertainty, expected value concept and decision tree analysis; the monte carlo simulation, probability and analysis, sensitivity analysis decision analysis; and the integrated economic model of a typical oil field development.

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### **Course Objectives**

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

- Apply and gain an in-depth knowledge on E&P risk analysis, prospect evaluation and exploration economics
- Discuss the importance of economic and risk analysis including demand, supply and the market
- Identify oil price in short term and long term as well as the fundamentals of oil and gas hedging and the sequence of events of a new discovery
- Discuss exploration economics and reservoir drive mechanisms
- Carryout reserve estimation and decline curve analysis
- Review production profile, revenue, costs and profit
- Recognize the time value of money, net present value, internal rate of return and pay out time
- Illustrate profit/investment ratio, oil agreements and economic models and spreadsheet design
- Discuss risk and uncertainty and expected value concept
- Apply decision tree analysis, monte carlo simulation, probability analysis, sensitivity analysis and decision analysis
- Set up an integrated economic model of a typical oil field development

## Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive "Haward Smart Training Kit" (H-STK<sup>®</sup>). The H-STK<sup>®</sup> 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 E&P risk analysis, prospect evaluation and exploration economics for geoscientists, negotiators, engineers, economists and managers.

#### Training Methodology

All our Courses are including Hands-on Practical Sessions using equipment, State-ofthe-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.



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## 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: -

• IACET

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.



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.

## Course Fee

**US\$ 8,500** per Delegate. This rate includes H-STK<sup>®</sup> (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

### **Accommodation**

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



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#### 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 Petroleum Engineer with over 30 years of international experience within the onshore and offshore oil & gas industry. His wide experience covers Decision Analytic Modelling Methods for Economic Evaluation, Probabilistic Risk Analysis (Monte Carlo Simulator) Risk Analysis Foundations, Global Oil Demand, Crude Oil Market, Global Oil Reserves, Oil Supply & Demand, Governmental Legislation, Contractual Agreements, Financial Modeling, Oil Contracts, Project Risk Analysis, Feasibility Analysis Techniques, Capital Operational Costs, Oil & Gas Exploration Methods, Reservoir Evaluation, Extraction of Oil & Gas, Crude Oil

Types & Specifications, Sulphur, Sour Natural Gas, Natural Gas Sweeting, Petroleum Production, Field Layout, Production Techniques & Control, Surface Production Operations, Oil Processing, Oil Transportation-Methods, 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 Operations, Production 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 and 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 and Drilling & Workover Engineer, Operations Consultant, 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 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.



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# 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	Importance of Economic & Risk Analysis
0930 - 0945	Break
0945 - 1100	Demand, Supply & the Market
1100 – 1230	Demand & Supply: Elasticity
1230 - 1245	Break
1245 - 1345	Oil Price in Short Term & Long Term
1345 – 1420	The Fundamentals of Oil & Gas Hedging - Swaps
1420 - 1430	Recap
1430	Lunch & End of Day One

### Day 2

Day Z	
0730 - 0930	Sequence of Events of a New Discovery
0930 - 0945	Break
0945 - 1030	Exploration Economics
1030 - 1130	Reservoir Drive Mechanisms
1130 – 1230	Reserve Estimation
1230 - 1245	Break
1245 - 1345	Decline Curve Analysis
1345 - 1420	Production Profile
1420 – 1430	Recap
1430	Lunch & End of Day One

#### Day 3

Revenue, Costs & Profit
Time Value of Money
Break
Net Present Value
Internal Rate of Return
Pay Out Time
Break
Profit/Investment Ratio
Recap
Lunch & End of Day One

#### Day 4

Day 4	
0730 - 0930	Oil Agreements
0930 - 0945	Break
0945 – 1030	Economic Models & Spreadsheet Design
1030 - 1130	Risk & Uncertainty
1130 – 1230	Expected Value Concept
1230 – 1245	Break
1245 - 1420	Decision Tree Analysis
1420 - 1430	Recap
1430	Lunch & End of Day One



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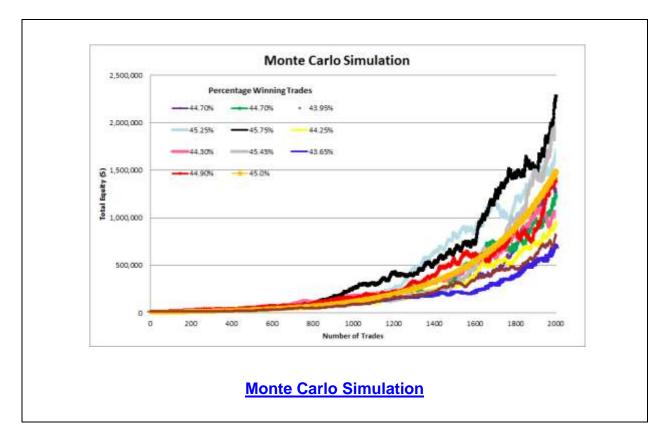


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Monte Carlo Simulation
Break
Probability Analysis
Sensitivity Analysis
Decision Analysis
Break
Setting Up an Integrated Economic Model of a Typical Oil Field Development
Course Conclusion
POST-TEST
Presentation of Course Certificates
Lunch & End of Course

#### **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 the simulator "Monte Carlo".



### **Course Coordinator**

Reem Dergham, Tel: +974 4423 1327, Email: reem@haward.org



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