

COURSE OVERVIEW DE0266
Introduction to Field Development Planning

Course Title

Introduction to Field Development Planning

Course Date/Venue

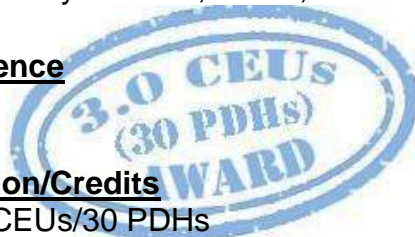
February 11-15, 2024/TBA Meeting Room, The H-Hotel, Sheikh Zayed Road, Dubai, UAE

Course Reference

DE0266

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.



Field development planning comprises a great amount of investments and involves a high number of parameters related to the geological and structural characteristics of the reservoir, to the operational scheduling and the economic scenario. The importance of this problem demands the elaboration of methodologies that can help in the management decision making process, leading to better recovery strategies that increase both reserves and profitability of reservoirs.



The Field Development Plan (FDP) is the technical document containing the necessary information, for conducting a specific field development project. Field development plans comprise activities and processes required to develop a field: environmental impact, geophysics, geology, reservoir and production engineering, infrastructure, well design and construction, completion design, surface facilities, economics, and risk assessments.

Field Development Plan is the output of sequences of decisions and discipline-based study activities conducted in geoscience, reservoir engineering, production engineering and reservoir simulation. It is a basis for coming up with a robust way to developing, producing and maintaining hydrocarbon resource. It forms an input for designing associated surface facilities. Combined documents, both subsurface, and surface constitute the basis for the financial decision.

This course is designed to provide participants with an opportunity to learn the fundamental approach in writing a Field Development Plan (FDP). It emphasizes the importance of the sub-surface team (production profiles) working closely with the facilities team(s), in order to maximize the value of the project whilst managing risk. Realistic field examples are used to demonstrate the concepts. Participants will understand the methods of controlling the decision-making process to optimise the development. The course examples will illustrate the typical evaluation of field understanding, with a mixture of predictable and less predictable data acquired.

Course Objectives

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

- Apply and gain a fundamental knowledge on field development planning
- Develop an understanding of the theory and practice of field development planning
- Discuss the different phases of a reservoir life cycle as well as the reason and the need to come up with a field development plan in order to exploit the reservoir
- Identify the different field development options for the reservoir and the industry trends on maturing oil and gas projects
- Recognize the importance and benefits of integration of disciplines through working as a multi-disciplinary team
- Identify uncertainty, its significance and explain the importance of assessing it realistically
- Recognize hydrocarbon accumulations and apply exploration techniques
- Describe data integration and their interdependence
- Apply integration and timing of subsurface and surface for decision making process
- Determine the different interfaces and their relationship, implement data gathering and identify the need for reservoir monitoring
- Analyze key data collected during exploration as well as estimate hydrocarbons in place and estimate recoverable volumes
- Recognize recovery mechanisms and the facilities choice for possible development options
- Estimate development costs at this stage and identify the various components of a field development plan
- Appraise the trade-off between cost and value of data and assess how to ensure that the optimum amount of data is collected
- Describe and relate the importance of commercial goals to technical goals

- List the different tasks and activities that need to be done and reported in a field development plan
- Review the concepts of FDP and introduce the opportunity on framing workflow, road map, risk register and stake holder mapping
- Evaluate the different development options and the key drivers for a successful development
- Identify project risks and key reservoir uncertainties as well as illustrate subsurface evaluation and building models
- Develop a multi-discipline appreciation and team building skills through the team exercises

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, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course is intended for reservoir engineers, petroleum engineers, production engineers, geoscientists, project managers and those involved in the preparation of field development plans (FDP).

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 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.

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

Certificates are accredited by the following international accreditation organizations: -


- 

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 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 **Oil & Gas, Refinery & Petrochemical** industries. His wide expertise includes **Workovers & Completions, Petroleum Risk & Decision Analysis, Acidizing Application in Sandstone & Carbonate, Well Testing Analysis, 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), Well Cementing, Production Optimization, Well Completion Design, Sand Control, PLT Correlation, Slickline Operations, Acid Stimulation, Well testing, Production Logging, Project Evaluation & Economic Analysis**. 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 **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: Sunday, 11th of February 2024

0730 – 0800	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	<i>The Different Phases of a Reservoir Life Cycle</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>The Reason & the Need to Come Up with a Field Development Plan in Order to Exploit the Reservoir</i>
1100 – 1230	<i>Introduction of Different Field Development Options for the Reservoir</i>
1230 – 1245	<i>Break</i>
1245 – 1345	<i>Industry Trends on Maturing Oil & Gas Projects</i>
1345 – 1415	<i>Hydrocarbon Accumulations</i>
1415 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2: Monday, 12th of February 2024

0730 – 0930	<i>Overview of Exploration Techniques</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Data Integration & their Interdependence</i>
1100 – 1230	<i>Integration & Timing of Subsurface & Surface for Decision Making Process</i>
1230 – 1245	<i>Break</i>
1245 – 1345	<i>Different Interfaces & their Relationship</i>
1345 – 1415	<i>Data Gathering & Need for Reservoir Monitoring</i>
1415 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>

Day 3: Tuesday, 13th of February 2024

0730 – 0930	<i>Key Data Collected During Exploration</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Estimating Hydrocarbons in Place</i>
1100 – 1230	<i>Estimating Recoverable Volumes</i>
1230 – 1245	<i>Break</i>
1245 – 1345	<i>Recovery Mechanisms</i>
1345 – 1415	<i>Facilities Choice for Possible Development Options</i>
1415 – 1430	Recap
1430	<i>Lunch & End of Day Three</i>

Day 4: Wednesday, 14th of February 2024

0730 – 0930	<i>Estimating Development Costs at this Stage</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Various Components of a Field Development Plan</i>
1100 – 1230	<i>Different Tasks & Activities that Need to be Done & Reported in a Field Development Plan</i>

1230 - 1245	Break
1245 - 1345	Review the Concepts of FDP
1345 - 1415	Introduction to Opportunity Framing Workflow, Road Map, Risk Register & Stake Holder Mapping
1415 - 1430	Recap
1430	Lunch & End of Day Four

Day 5: Thursday, 15th of February 2024

0730 - 0930	Evaluating the Different Development Options
0930 - 0945	Break
0945 - 1145	What are the Key Drivers for a Successful Development?
1145 - 1230	Identifying Project Risks
1230 - 1245	Break
1245 - 1315	Identifying Key Reservoir Uncertainties
1315 - 1345	Subsurface Evaluation & Building Models
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 the real-life case studies and exercises:-



Course Coordinator

Kamel Ghanem, Tel: +971 2 30 91 714, Email: kamel@haward.org