

COURSE OVERVIEW DE0572
Basin Analysis Workshop

Course Title

Basin Analysis Workshop

Course Reference

DE0572

Course Duration/Credits

Five days/3.0 CEUs/30 PDHS

Course Date/Venue



Session(s)	Date	Venue
1	April 28-May 02, 2024	Oryx Meeting Room, DoubleTree By Hilton Doha-Al Sadd, Doha, Qatar
2	May 26-30, 2024	
3	September 29-October 03, 2024	
4	November 17-21, 2024	

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 basin analysis. It covers the sedimentary basins including its definitions and plate tectonics; the basin forming mechanisms and how and where basins are formed; the basin classification and structural analysis; the nomenclatures; and structural styles within sedimentary basins; and the basin fill, sequence stratigraphy and depositional environments.



During this interactive course, participants will learn the geochemical analysis; the organic matter in sediments; the source rocks and geochemical analysis for petroleum exploration; the temperatures in sedimentary basins including its pressure and compaction; the heat flow and temperatures; the petroleum systems modeling; the hydrocarbon generation and hydrocarbon migration; the petroleum system approach; and the uncertainty management and quantification.

Course Objectives

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

- Apply and gain in-depth knowledge on basin analysis and petroleum systems modeling
- Discuss sedimentary basins including its definitions and plate tectonics
- Identify the basin forming mechanisms as well as explain how and where basins are formed
- Classify basin and analyze structural as well as discuss nomenclatures and structural styles within sedimentary basins
- Recognize basin fill, sequence stratigraphy and depositional environments
- Carryout geochemical analysis and identify organic matter in sediments, source rocks and geochemical analysis for petroleum exploration
- Recognize the temperatures in sedimentary basins including its pressure and compaction, heat flow and temperatures
- Illustrate petroleum systems modeling hydrocarbon generation and hydrocarbon migration
- Apply petroleum system approach, uncertainty management and quantification

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 basin analysis and petroleum systems modeling for geoscientists involved in petroleum systems modeling and those who wants to know more about the petroleum systems modeling approach.

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 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: -


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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.

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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® (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 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

0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0900	Introduction to Sedimentary Basins
0900 - 0930	Definitions
0930 - 0945	Break
0945 - 1100	Plate Tectonics
1100 - 1215	Basin Forming Mechanisms
1215 - 1230	Break
1230 - 1420	How are Basins Formed?
1420 - 1430	Recap
1430	Lunch & End of Day One

Day 2

0730 - 0830	Where are Basins Formed?
0830 - 0930	Basin Classification & Structural Analysis
0930 - 0945	Break
0945 - 1100	Nomenclatures
1100 - 1215	Structural Styles Within Sedimentary Basins
1215 - 1230	Break
1230 - 1420	Basin Fill
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 - 0830	Sequence Stratigraphy
0830 - 0930	Depositional Environments
0930 - 0945	Break
0945 - 1100	Geochemical Analysis
1100 - 1215	Organic Matter in Sediments
1215 - 1230	Break
1230 - 1420	Source Rocks
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 - 0830	Geochemical Analysis for Petroleum Exploration
0830 - 0930	Temperatures in Sedimentary Basins
0930 - 0945	Break
0945 - 1100	Pressure & Compaction
1100 - 1215	Heat Flow
1215 - 1230	Break
1230 - 1420	Temperatures
1420 - 1430	Recap
1430	Lunch & End of Day Four





Day 5

0730 – 0830	<i>Petroleum Systems Modeling</i>
0830 – 0930	<i>Hydrocarbon Generation</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Hydrocarbon Migration</i>
1100 – 1215	<i>The Petroleum System Approach</i>
1215 – 1230	<i>Break</i>
1230 – 1345	<i>Uncertainty Management & Quantification</i>
1345 – 1400	<i>Course Conclusion</i>
1400 – 1415	<i>POST-TEST</i>
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>

Practical Sessions

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



Course Coordinator

Jaryl Castillo, Tel: +974 4423 1327, Email: jaryl@haward.org

