

COURSE OVERVIEW PE0442 Utilities and Steam System in Fertilizers Plants

Course Title

Utilities and Steam System in Fertilizers Plants

Course Date/Venue

Session 1: July 06-10, 2025/Boardroom 1, Elite

Byblos Hotel Al Barsha, Sheikh

Zayed Road, Dubai, UAE

Session 2: 2025/Fujairah December 08-12.

Meeting Room, Grand Millennium Al

(30 PDHs)

Wahda Hotel, Abu Dhabi, UAE



Course Reference

PE0442

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description



This practical and highly-interactive course includes real-life studies and exercises case 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 Fertilizer Markets, Products & Technologies. It covers the market dynamics, key players and market trends; the classification and characteristics of nitrogenous, phosphatic, and potassic fertilizers; the fertilizer demand and supply, economic impact of fertilizers and global and regional regulations affecting the fertilizer industry; the sustainability practices in fertilizer production; and the nitrogen fertilizer phosphorus fertilizer production production. and potassium fertilizer production.



Further, the course will also discuss the innovative fertilizer technologies and by-products and waste management; improving energy efficiency and reducing emissions; the nutrient management best practices and soil fertility and testing; using technology to enhance fertilizer application efficiency; the application and benefits of foliar fertilizers and micronutrient supplements; the environmental impact of fertilizers, tools and methods for analyzing fertilizer markets; the factors affecting fertilizer pricing and strategies for pricing optimization; and the efficient distribution and logistics management in the fertilizer industry.

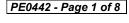




















During this interactive course, participants will learn the effective marketing and sales approaches for fertilizer products; identifying and targeting different customer segments and mitigating risks in the fertilizer market; and the emerging fertilizer markets, biological fertilizers, digital agriculture, sustainable agriculture practices and policy and regulation trends.

Course Objectives

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

- Apply and gain a comprehensive knowledge on fertilizer markets, products and technologies
- Discuss the market dynamics, key players and market trends as well as the classification and characteristics of nitrogenous, phosphatic, and potassic fertilizers
- Identify fertilizer demand and supply, economic impact of fertilizers and global and regional regulations affecting the fertilizer industry
- Employ sustainability practices in fertilizer production and determine nitrogen fertilizer production, phosphorus fertilizer production and potassium fertilizer production
- Discuss innovative fertilizer technologies and apply by-products and waste management by handling and utilizing by-products and waste from fertilizer production
- Improve energy efficiency and reduce emissions as well as apply nutrient management best practices, and soil fertility and testing
- Use technology to enhance fertilizer application efficiency and explain the application and benefits of foliar fertilizers and micronutrient supplements
- Discuss the environmental impact of fertilizers, tools and methods for analyzing fertilizer markets and the factors affecting fertilizer pricing and strategies for pricing optimization
- Carryout efficient distribution and logistics management in the fertilizer industry including effective marketing and sales approaches for fertilizer products
- Identify and target different customer segments and mitigate risks in the fertilizer market
- Discuss the emerging fertilizer markets, biological fertilizers, digital agriculture, sustainable agriculture practices and policy and regulation trends











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 fertilizer markets, products and technologies for those who are working in the fertilizer industry, particularly those who have recently assumed new responsibilities, to increase their technical knowledge in fertilizer production and for experienced staff to become better acquainted with new technologies in the industry. The course will help to improve the participants' skills and broaden their vision and understanding of the entire industry, including technology, economics, energy, use, safety and environmental stewardship.

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\$ 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.

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: -

• *** *BAC

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.

• ACCREDITED
PROVIDER

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. Hassan Ali is a Senior Petroleum & Process Engineer with over 30 years of extensive experience in Offshore & Onshore fields within the Oil & Gas industries. He has great involvement and expert in all facets of Production Operations including Oil Plant & Process Operations for Gas Compressors Stations & Condensate Recovery, Gas Dehydration/Regeneration Units Troubleshooting, Oil Production & Shipments, Operations of Sea Water Intake Pumping Station, Oil Storage Tanks &

Loading Facilities. His area of expertise includes Electrical Submersible Pump (ESP), Crude Oil Artificial Lift Systems, Production Chemistry & Chemical Treatment in the Oil & Gas Fields, Processing & Well Testing activities such as Gas Lift Wells & ESP Well, Natural Flow Wells, G/I Wells, G/L Wells, GOSP & LGP & Land Wells. He is further well-versed in HYSYS & PIPESIM Software Programs for Flow through Pipeline & Process Equipment such as Design of Heat Exchangers & Troubleshooting, Design of Fired Heaters & Operation Problems and Air Coolers & Pumps during his day-to-day work. Further, his wide experience also covers Treatment of Crude Oil, Waste Water Treatment Technology, Production Shutdown, Gas Conditioning & Compressors, Plant Shutdown & Partial Shutdown, Surface Production Facilities, Equipment Related & Petroleum Risk Analysis.

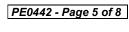
Mr. Ali is currently the Field Production General Manager of SUCO that is actively involved in the Production Operations, where he leads all On-shore Facilities, Plant & Off-shore Wells on Three Platforms and reviewed all Equipment Parameters such as Tanks, Vessels, Heat Exchangers, Pumps Gas Flaring System as well as Quality Controller of Crude Oil Analysis Salt Content & Shipment Crude Specifications to Tankers, Arrange Down Hole Surveys, Productions Logging Tools, Water Shut Off, Perforations, Chemical & Mechanical Tubing Cleaning, Operations of Off-Shore Gas & Oil Separation Plant, Desalter Plant, Water Injection Plant, Four Gas Compressor Stations & Four Glycol units, Desalination units & R.O. units. Prior to this, he held challenging key positions as a **Production Engineer**, Onshore Process Shift Engineer, Field Offshore Production Engineer, Offshore Supervisor, Process & Facilities Engineer, Production Supervisor, Processing Supervisor and a Senior Production Operations Engineer. His experience was not only confined to the industry alone. He has been the Senior Plant Engineer in KJO and he was also able to contribute his expertise and impart his knowledge as a Technical Instructor.

Mr. Ali has a **Bachelor's** degree in **Petroleum Engineering**. Further, he is an **OSHA Certified**, a **Certified Instructor/Trainer** and holds **Certificates** in **School of Completion & Work Over** and **Well Testing** from the **USA** and has conducted numerous short courses, seminars, conferences and workshops internationally.



















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

Day I	
0730 - 0800	Registration & Welcome
0800 - 0815	Coffee & Introduction
0815 - 0830	PRE-TEST
0830 - 0900	Global Fertilizer Market Overview: Understanding Market Dynamics, Key Players, & Market Trends
0900 -0930	Types of Fertilizers : Classification & Characteristics of Nitrogenous, Phosphatic, & Potassic Fertilizers
0930 - 0945	Break
0945 – 1100	Fertilizer Demand & Supply : Factors Influencing Demand & Supply, Regional Consumption Patterns
1100 – 1230	Economic Impact of Fertilizers : Role in Agriculture, Food Security, & Economic Development
1230 - 1245	Break
1230 - 1330	Regulatory Environment: Overview of Global & Regional Regulations Affecting the Fertilizer Industry
1330 - 1420	Sustainability in Fertilizer Production : Sustainable Practices & their Impact on the Environment
1420 - 1430	Recap
1430	Lunch & End of Day One
0945 - 1100 1100 - 1230 1230 - 1245 1230 - 1330 1330 - 1420 1420 - 1430	Fertilizer Demand & Supply: Factors Influencing Demand & Supple Regional Consumption Patterns Economic Impact of Fertilizers: Role in Agriculture, Food Security, Economic Development Break Regulatory Environment: Overview of Global & Regional Regulatio Affecting the Fertilizer Industry Sustainability in Fertilizer Production: Sustainable Practices & the Impact on the Environment Recap

Day 2

/ _	
0730 - 0830	Nitrogen Fertilizer Production: Ammonia Synthesis, Urea Production, & Other Nitrogenous Fertilizers
0830 - 0930	PhosphorusFertilizerProduction:PhosphateRockProcessing,Phosphoric Acid Production, & Phosphate Fertilizers
0930 - 0945	Break
0945 - 1100	Potassium Fertilizer Production : Mining & Processing of Potash, Production of Potassium Fertilizers
1100 - 1230	Innovative Fertilizer Technologies: Advances in Slow-Release & Controlled-Release Fertilizers
1230 - 1245	Break
1230 - 1330	By-Products & Waste Management : Handling & Utilization of By-Products & Waste from Fertilizer Production
1330 - 1420	Energy Efficiency in Production: Techniques to Improve Energy Efficiency & Reduce Emissions
1420 - 1430	Recap
1430	End of Day Two

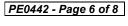
Day 3

0730 - 0830	Nutrient Management Practices : Best Practices for Fertilizer Application to Optimize Crop Yield
0830 - 0930	Soil Fertility & Testing : Methods for Testing Soil Fertility & Determining Fertilizer Requirements
0930 - 0945	Break



















0945 – 1100	Precision Agriculture: Use of Technology to Enhance Fertilizer
	Application Efficiency
1100 – 1230	Foliar Fertilizers & Micronutrients: Application & Benefits of Foliar
	Fertilizers & Micronutrient Supplements
1230 - 1245	Break
1230 – 1330	Environmental Impact of Fertilizers : Understanding & Mitigating
	Negative Environmental Impacts
1330 - 1420	Case Studies: Real-World Examples of Effective Fertilizer Use in Different
	Crop Systems
1420 - 1430	Recap
1430	End of Day Three

Day 4

Day 4	
0730 - 0830	Market Research Techniques: Tools & Methods for Analyzing Fertilizer
	Markets
0830 - 0930	Pricing Strategies: Factors Affecting Fertilizer Pricing & Strategies for
	Pricing Optimization
0930 - 0945	Break
0945 - 1100	Distribution & Logistics : Efficient Distribution & Logistics Management
	in the Fertilizer Industry
1100 - 1230	Marketing & Sales Strategies: Effective Marketing & Sales Approaches
	for Fertilizer Products
1230 - 1245	Break
1230 - 1330	Customer Segmentation: Identifying & Targeting Different Customer
	Segments
1330 - 1420	Risk Management: Identifying & Mitigating Risks in the Fertilizer
	Market
1420 - 1430	Recap
1430	End of Day Four

Day 5

0730 - 0830	Emerging Markets : Opportunities & Challenges in Emerging Fertilizer Markets
0830 - 0930	Biological Fertilizers : Advances in Biofertilizers & their Potential Impact on Traditional Fertilizers
0930 - 0945	Break
0945 - 1100	Digital Agriculture : Role of Digital Technologies in Transforming Fertilizer Application & Market Dynamics
1100 – 1230	Sustainable Agriculture Practices: Integrating Fertilizers into Sustainable Farming Practices
1230 - 1245	Break
1230 - 1330	Policy & Regulation Trends : Future Regulatory Trends & their Potential Impact on the Fertilizer Industry
1330 - 1345	Innovation & R&D : Current Research & Development Trends in Fertilizer Technologies
1345 - 1400	Course Conclusion
1400 - 1415	POST-TEST
1415 - 1430	Presentation of Course Certificates
1430	End of Course













Practical Sessions

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



<u>Course Coordinator</u> Mari Nakintu, Tel: +971 2 30 91 714, Email: <u>mari1@haward.org</u>









