

Oil Process Facilities

Enhance your Oil Process Facilities Knowledge and Skill by Learning Practical Things from the Expert!
Course Level : Basic - Intermediate

02nd - 06th October 2023 at Kuala Lumpur, Malaysia



Petrosync Distinguished Instructor

Magdi El Naggar

Managing Director

Oil Fields Global Consultants (OFGC)

- Officially Certified as Professional Petroleum Engineering Consultant (License 116/7).
- Technical Advisor for several companies in the Middle & Far Easts, Africa and Gulf countries.
- 46 years of professional experience in various phases of Petroleum/Reservoir/Production/Drilling & Workover Engineering and field operations with several multi-national international companies including ARAMCO (Saudi Arabia) and ADCO (UAE).
- Professional in all phases of well intervention operations utilizing coiled tubing and well control as well as extended reach operations.

A lot of
Practical Things,
Case Studies
and Exercises!

Course Objectives

- Understand surface facilities components from well to production station
- Understand the principles of Oil & Gas Separation
- Understand the principles of Oil & Gas Dehydration
- Familiarize with the principles of Fractionation & Operations
- Familiarize with the principles of Refrigeration Operations
- Understand and Identify the Operating problems
- Familiarize with the Pipeline Operations & Maintenance, Problem & Troubleshooting
- Familiarize with the Pipeline Pigging Operations
- Familiarize with types of Storage Tanks, Associated Hazards & Safety
- Familiarize with various equipment and tools and its function

WHY YOU SHOULD ATTEND PETROSYNC'S EVENTS

- To ensure that all objectives of the course matches yours, all PetroSync programs are developed after intensive and extensive research within the industry
- PetroSync programs focus on your immediate working issues to ensure that you are able to apply and deliver immediate results in real work situations
- Application and implementation of industry knowledge and experience are the drivers for our course design, not theoretical academic lectures
- PetroSync training focuses on practical interactive learning tools and techniques including case studies, group discussions, scenarios, simulations, practical exercises and knowledge assessments during the course. Invest a small amount of your time to prepare before attending the course to ensure maximum learning
- PetroSync follows a rigorous selection process to ensure that all expert trainers have first-hand, up-to-date and practical knowledge and are leaders of their respective industrial discipline

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Course Overview

This course is designed to ensure awareness and effective understanding of various phases of production operations fundamentals throughout understanding the functions of various oil field components from the well to processing facilities.

The course also addresses and emphasizes the fundamental understanding of wide range of oilfield production handling and treatment equipment not only “what” but “how” the field fluid treating equipment works. The major objective of this course is to improve communication amongs the technical disciplines across organizations in order to enhance operational and cross functional work performance, promote cooperation and team work spirit amongs the team across various organizations, optimize cost and improve production economics. This can be the operator’s best insurance to achieve successful safe and cost effective operations

Who Should Attend?

- ▶ Production Engineers with 0-10 Years Experience
- ▶ Operation Engineers with 0-10 Years Experience
- ▶ Facilities Engineers with 0-10 Years Experience
- ▶ Petroleum Engineers with 0-10 Years Experience
- ▶ Field Production Supervisors with 0-10 Years Experience
- ▶ Surface Equipment Technicians with 0-10 Years Experience
- ▶ Field Facility Engineers / Operators with 0-10 Years Experience

Training Methods

The course is based on a balanced combination of classroom teaching and syndicate exercises supported by case studies and exercises within the industrial environment. This course is designed in with leading industry knowledge and practical case studies discussion and analysis to provide an interactive learning environment. Pre & Post-Course tests will be conducted to evaluate the learning level gained out of the course. Moreover, daily quizzes will be utilized to keep the information live amongs the participants.

PROGRAM SCHEDULE

08:00	Registration (Day1)
08:10 – 10:00	Session I
10:00 – 10:15	1 st Tea Break
10:15 – 12:30	Session II
12:30 – 13:30	Lunch Break
13:30 – 15:00	Session III
15:00 – 15:15	2 nd Tea Break
15:15 – 16:00	Session IV
16:00	End of Day

**Schedule may vary for each training*

IN-HOUSE SOLUTIONS

SAVE COST • IMPROVE PERFORMANCE • REDUCE RISK

PetroSync understands that in current economic climate, getting an excellent return on your training investment is critical for all our clients. This excellent training can be conducted exclusively for your organization. The training can be tailored to meet your specific needs at your preferred location and time. We will meet you anywhere around the globe.

If you like to know more about this excellent program, please contact us on +65 3159 0800 or email general@petrosync.com

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Course Agenda

Day 1

Pre-Course test

Module 1: Introduction and Overview

- Properties of fluids, viscosity, density, solubility, compressibility, surface tension at surface.
- Effects of fluid properties on production system
- Phase envelope, dew/bubble points, dense phase, critical point, hydrocarbon mixture
- Laws: Stokes, Bernoulli, Darcy, Reynolds

Module 2: Integrated Production System

- Reservoirs: types, drive mechanisms, porosity, permeability, skin
- Wells: Types and objectives
- Surface facilities: Configurations and objectives
- Flowlines, piping, gathering systems; solids and liquid limits
- Production measurements and types of meters
- Disposal: types and environmental impact
- Nodal analysis: pressure drop over the system

Module 3: Sub-surface Operations

- Well types: vertical, deviated, casing schemes, cementation, completion classification, packers, perforations, tubing standards, tubing connections.
- Vertical flow performance: multi-phase flow
- Well integrity: well intervention operations, workover, snubbing, coiled tubing, acid treatment, pressure control, SSSV, MAASP
- Artificial lift: gas lift, beam pump, ESP, etc.

Group discussion & exercises

Day 2

Quizzes & Recap

Module 4: Wellhead & X-mas Tree

- Types of casing and objectives
- Casing head housing/spools
- Tubing hanger: Tubing hanger systems and components, types
- X-mas tree: types, valves, API standard

Module 5: Flow Control and Manifolds

- Chokes: fixed, variable, critical flow, erosion
- Flowlines: horizontal flow performance: multi-phase flow, vertical flow phases
- Manifold layout

Module 6: Separation

- 2 and 3 phase separation, multi-stage separation, effects of separator pressure, internals of separators, vertical / horizontal separators, retention time.
- Atmospheric separation, surge vessels

Module 7: Oil Treatment

- Wash tanks, storage/export tanks,
- Emulsion treatment, dehydration/desalting of crude
- Solids in oil
- Export / sales quality and market requirements

Case Study:

Emulsion

Reservoir and emulsion aspects

Demulsification

Day 3

Quizzes & Recap

Module 8: Pipeline Systems

- Operations
- Maintenance
- Inspection of pipelines
- Best practices of pipeline pigging operations
- Cathodic protection and corrosion monitoring through pigging operations

Module 9: Water Treatment

- Water quality: oil in water, disposal at surface/sub-surface, water injection, hydro- cyclones

Module 10: Reserves Planning

- PRMS: Petroleum Resource Management System
- Portfolio management

Module 11: Gas Treatment

- Gas coolers: water in gas, isobaric dehydration
- LTS: mechanical cooling, J-T valves, turboexpander
- Absorption: glycol systems, regeneration, contactor, quality, filters
- Adsorption: silica gel systems, batch operation
- Acid gas treatment

Case Study:

Produced water treatment & recycling

Wash water quality and role in oil separation process

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Day 4

Quizzes & Recap

Module 12: Corrosion

- Corrosion mechanisms
- CO₂, H₂S, Chlorine, brittle fractures, HIC
- Galvanic corrosion
- Corrosion detection, management and protection

Module 13: Rotating Equipment

- Pumps
- Compressors (reciprocating, centrifugal)

Module 14: Static Equipment

- Heaters
- Vessels
- Valves
- Regulators

Case Study:

3 case studies by participants

Day 5

Module 15: Instrumentation

- Measurement equipment: end elements, DCS / SCADA
- Safety equipment: IPF, HIPPS, voting systems
- Fiscal measurements
- Reliability: SIL, FoD, risk

Module 16: State-of-the-Art Systems

- New developments

Module 17: Oil Storage & Shipping Facilities

- Tanks and Tank Storage facilities
- Types of Storage Tanks
- Associated Hazardous Conditions

Module 18: HSE Requirements

- Authorization and Competency of Production Personnel
- General Safety Procedures
- Handling Chemicals

Post-course test

HYBRID TRAINING SOLUTIONS

FOCUS TRAINING • REDUCE COST • ENHANCED RESULTS

Over the years, there has been a growing demand for hybrid training programs. It is an excellent option to maximize your training dollar for your specific training needs. We make it possible to run a training program that is customized totally to your training needs at a fraction of an in-house budget!

If you like to know more about this excellent program, please contact us on +65 3159 0800 or email general@petrosync.com

Petrosync Quality

Limited Attendees

The course has limited seats to ensure maximum learning and experience for all delegates.

Certificate of Attendance

You will receive a Certificate of Attendance bearing the signatures of the Trainer upon successful completion of the course. This certificate is proof of your continuing professional development.

Interactive Training

You will be attending training designed to share both the latest knowledge and practical experience through interactive sessions. This will provide you with a deeper and more long-term understanding of your current issues.

High Quality Course Materials

Printed course manual will provide you with working materials throughout the course and will be an invaluable source of reference for you and your colleagues afterward. You can follow course progress on your laptop with soft copies provided.

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Publications

- ▶ Coiled Tubing Operations Standard Procedures
- ▶ Production Engineering Operations Standard Procedures
- ▶ Recently, completed a total of 3,000 research papers in various topics of O & G industry since 2014

Partial Client List

- | | |
|-----------------------------------|-------------------------|
| ▶ SHELL | ▶ OGS (Egypt) |
| ▶ TOTAL (Indonesia) | ▶ APEX |
| ▶ Schlumbergers (Iraq) | ▶ Petromentor (China) |
| ▶ EXXON - ARAMCO | ▶ CNPCIC (China) |
| ▶ ADCO | ▶ Oman Gas |
| ▶ Murphy | ▶ Oman Petrogas |
| ▶ Sapura (Malaysia) | ▶ Sohar Aluminum (Oman) |
| ▶ Arabian Gulf | ▶ Petrofac |
| ▶ GUPCO (Egypt) | ▶ OXY (Oman) |
| ▶ ARAMCO | ▶ Talisman |
| ▶ Osterreichische Mineralol (OMV) | |

Major Related Projects

- ▶ Full fields development studies and planning
- ▶ Surface and subsurface integrated system design
- ▶ Reservoir recovery system selection and design
- ▶ Produced water treatment management

COURSE DETAILS

Title : Oil Process Facilities
Date : 02nd - 06th October 2023
Location : Kuala Lumpur, Malaysia

PROGRAMME CONSULTANT

Name : Cay Aagen
Email : registration@petrosync.com
Phone : +65 3159 0800

INVESTMENT PACKAGES

Please checklist the package that you are attending!

Oil Process Facilities SCHEDULE	LOCATION	PRICE
<input type="checkbox"/> 02 nd - 06 th October 2023	Kuala Lumpur, Malaysia	USD 4,195

* All prices are subject to change without notice and are not guaranteed, except that prices for an order that have been accepted by PetroSync is not subject to change after acceptance

* Price is nett excluding Withholding Tax if any and will be quoted separately. Please send us the withholding tax payment receipt.

DELEGATE DETAILS

1st Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

2nd Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

3rd Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

*Please fill all the details including mobile number. This help us to contact participant if they are late in class or if there is any urgent update (through whatsapp/call)

INVOICE DETAILS

Attention Invoice to: _____

Direct Line Number: _____ Fax: _____

Company: _____ Industry: _____

Address: _____ Postcode: _____

Country: _____ Email: _____

Please note:

- Indicate if you have already registered by Phone Fax Email Web

- If you have not received an acknowledgement before the training, please call us to confirm your booking.

PAYMENT METHODS

By Credit Card

By Direct Transfer : Please quote invoice number(s) on remittance advice

PetroSync Global Pte Ltd Bank details:

Account Name : PetroSync Global Pte Ltd

Bank Name : DBS Bank Ltd

Bank Code : 7171 • Bank Swift Code : DBSSSGSGXXX • Branch code : 288

Account No : 0288-002682-01-6-022 (USD)

Bank Address : 12 Marina Boulevard, Level 3. Marina Bay Financial Centre Tower 3. Singapore 018982

All bank charges to be borne by payer. Please ensure that PetroSync Global Pte Ltd receives the full invoiced amount.

COURSE CONFIRMATION

I agree to PetroSync's payment terms and cancellation policy.

Signature : _____

Date : _____

PAYMENT TERMS : Payment is due in full at the time of registration. Full payment is mandatory for event attendance.

DISCLAIMER

Please note that trainers and topics were confirmed at the time of publishing; however, PetroSync may necessitate substitutions, alterations or cancellations of the trainers or topics or location (classroom / Virtual). As such, PetroSync reserves the right to change or cancel any part of its published programme due to unforeseen circumstances. Any substitutions or alterations will be updated on our web page as soon as possible

DATA PROTECTION

The information you provide will be safeguarded by PetroSync that may be used to keep you informed of relevant products and services. As an international group we may transfer your data on a global basis for the purpose indicated above. If you do not want us to share your information with other reputable companies, please tick this box

CANCELLATION POLICY

Delegates who cancel after the training is officially confirmed run by email, are liable to pay the full course fee and no refunds will be granted. You may substitute delegates at any time as long as reasonable advance notice is given to PetroSync.

In the event that PetroSync cancels or postpones or change the trainer or change the training location (classroom / virtual) of an event for any reason and that the delegate is unable or unwilling to attend in on the rescheduled date, you will receive a credit voucher for 100% of the contract fee paid. You may use this credit voucher for another PetroSync to be mutually agreed with PetroSync, which must occur within a year from the date of postponement.

PetroSync is not responsible for any loss or damage as a result of the cancellation policy. PetroSync will assume no liability whatsoever in the event this event is cancelled, rescheduled or postponed due to any Act of God, fire, act of government or state, war, civil commotion, insurrection, embargo, industrial action, or any other reason beyond management control.

CERTIFICATE OF ATTENDANCE

80% attendance is required for PetroSync's Certificate of Attendance.

DETAILS

Please accept our apologies for mail or email that is incorrectly addressed.

Please email us at registration@petrosync.com and inform us of any incorrect details. We will amend them accordingly.

Find us on Social Media:

 PetroSync Global Pte Ltd

 PetroSync

 PetroSync

CHARGES & FEE(S)

- For Payment by Direct TelegraphicTransfer, client has to bear both local and oversea bank charges.

- For credit card payment, there is additional 4% credit card processing fee.