



**The  
Competency  
Alliance**

# INSTRUCTOR-LED TRAINING CATALOG 2024



**MULTI-DISCIPLINE TRAINING**

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Basic Drilling, Completion and Workover Operations - BDC</a>	Basic	This course presents the basics of drilling and completion operations, plus post-completion enhancement (workovers). Participants will learn to visualize what is happening downhole, discover what can be accomplished, and learn how drilling and completion can alter reservoir performance. Learn to communicate with drilling and production personnel.	2-Dec	6-Dec-24	5	Houston
			15-Jul	26-Jul-24	5	Virtual
<a href="#">Overview of the Petroleum Industry - OVP</a>	Basic	OVP presents an overview of the Petroleum Industry from the point of view of the Asset Life Cycle. Participants will gain an understanding of Exploration, Appraisal, Development and Production phases with particular emphasis being placed on actions they can personally take within each phase to support value creation. Through use of lecture, multimedia and class interactive exercises, a breadth of upstream business acumen will be delivered covering economic, business, geoscience and engineering topics. Discussions will include topics related to all types of resource plays including deepwater, shale oil/gas and enhanced oil recovery technologies.	24-Jun	25-Jun-24	2	Houston
<a href="#">Evaluating and Developing Shale Resources - SRE</a>	Foundation	This course will cover current practices for evaluating, drilling, and completing these challenging reservoirs with the primary goal that all participants come away with a clear understanding of the role and value of every discipline in an integrated team. Discussions and exercises will include a focus on the limitations of many of the current tools and technologies. Information and opportunities for many current and international shale plays will be described. The participant should leave the course with a foundational understanding of value-adding shale gas resource practices and an insight into determining the critical reservoir and stimulation parameters used to predict a potential commercial resource play.	5-Aug	9-Aug-24	5	Houston
<a href="#">Introduction to Machine Learning/Data Analytics for Subsurface Engineering and Geoscience Applications - IMLD</a>	Foundation	The interpretation of rich, heterogeneous and even real-time data has become possible because of recent advances in machine learning and the broader availability of computational power. The oil and gas industry is harnessing the power of this data-driven revolution to create actionable insights from real-time production, drilling, and completions data, SCADA data streams, 3D and 4D seismic, well data such as cores, well-logs, thin-sections and SEM images and even the advent of newer data type such as DTS/DAS measurements. This 2-day course will introduce participants to the concepts of exploratory data analyses, machine learning workflows and most importantly, data analytics and machine learning use cases for subsurface applications.	22-Oct	23-Oct-24	2	Houston



**GEOLOGY**

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Geochemistry: Tools for Effective Exploration and Development - MGT</a>	Foundation	Undiscovered reserves in prolific, mature basins and bypassed petroleum in developed fields are key targets for increasing reserves at minimal cost. Geochemical tools can dramatically improve discovery and development success by identifying and characterizing these targets in both conventional and unconventional systems. Course participants learn to interpret geochemical logs, map organic facies variations, identify petroleum systems using multivariate data, and predict vertical and lateral variations in oil quality and gas-to-oil ratios. The course teaches how to integrate geochemical, geological and engineering data to identify reservoir compartments, allocate commingled production, identify completion problems, and monitor flood progression.	7-Oct	11-Oct-24	5	Houston
<a href="#">Horizontal Well Placement and Geosteering - HWP</a>	Foundation	Advances in technology have dramatically reduced the time needed to transmit down hole tool responses to those responsible for interpreting the data in the context of the geological play and the reservoir. It follows that geoscience would request course corrections, which would be relayed to the field, and over time take a more proactive role in geosteering wells while drilling. However, advances in technology have also dramatically reduced the time needed to drill these wells, and proactively geosteering a well while drilling has come to require more than just an understanding of the geoscience. Geosteering personnel must now be able to gather and process incoming data and make targeting decisions with little time to spare. Down hole log responses must be understood within the context of the entire bottom hole assembly (BHA), including its limitations, and must incorporate trigonometry (for surveys and targeting) as well as the needs of the intended completion/production plan in order to modify targets for a well while drilling. Last but not least, there needs to be a clear process to communicate back to the field, so that the well site engineer and geologist are properly aligned.	21-Oct	25-Oct-24	5	Houston
<a href="#">Sandstone Reservoirs - SR</a>	Foundation	This course is essential for geoscientists and engineers involved in the exploration and development of clastic reservoirs. It focuses on methods that can be used to improve the prediction of reservoir size, shape, trend, and quality through detailed analysis of depositional environments. The sedimentary characteristics of each of the principal clastic depositional systems are presented in detail, using examples from recent environments, outcrops, cores, wireline logs, and test/production data from oil and gas fields in various parts of the world (United States, North Sea/Atlantic, Africa, Middle East, Far East, etc.). Practical exercises are taken from each of the principal depositional settings and involve detailed mapping, interpretation of core and log characteristics, and integration of data from FMI logs. Emphasis is placed on the application of fundamental sedimentary principles (modern, ancient, and subsurface) to actual subsurface data so that the participants can immediately use the information in their exploration and development activities.	23-Sep	27-Sep-24	5	Houston



**GEOLOGY**

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Structural Styles in Petroleum Exploration - ST</a>	Foundation	Even with the best of data, the correct interpretation of a subsurface structure usually requires recognition of the fundamental characteristics of the assemblage in which it occurs and the range of trap styles to be expected. This course provides an overview of all hydrocarbon-bearing structural assemblages and their associated trap types. The processes that produce the structures and control their styles are interpreted in terms of basic rock-mechanical principles. Classic outcrops, physical models, 2D and 3D seismic, and mature-field log-based interpretations from around the world provide analog examples for practical interpretation. Participants will learn the major structural trap geometries and the structural concepts for predicting the geometry where data are absent, misleading, or conflicting. The principles of section balancing and restoration are covered as tools for validating interpretations and for documenting structural evolution. Practical interpretation skills are developed in numerous exercises, most of which use seismic data.	13-May	17-May-24	5	Houston
<a href="#">Analysis of Structural Traps in Extensional Settings - ESS</a>	Intermediate	Extensional terranes provide some of the world's largest known and most prolific oil provinces and are the fundamental underpinning of most continental and deepwater margins. As one of the most common structural styles, they are present on all continents and form most continental shelves. The advent of 3D seismic technologies has revolutionized structural mapping, but the most realistic geologic interpretation of these structures is only as good as our ability to recognize and exploit the fundamental characteristics of the forms that are possible. This is the aim and purpose of this course. This course presents outcrop, subsurface, and seismic data along with model analogs to support structural interpretation in a wide range of extensional environments: thin-skinned environments along with the underlying, often hyperextended passive margins as well as intracontinental rifts. Fault linkage, relay ramp, transfer systems, and intrabasinal structural geometries are investigated in 3D using predictive kinematic and restorative thinking. The course covers the field level all the way up to basin-scale architecture, and the role of salt and strike-slip tectonics in the development of extensional basins. The typical traps related to extensional geometries are surveyed using real-world examples, with some review of deformational effects on reservoir quality.	28-Oct	1-Nov-24	5	Houston

**GEOLOGY**

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Basin Analysis Workshop: An Integrated Approach to the Exploration and Evaluation of Conventional and Unconventional Resources - BA</a>	Intermediate	Basin analysis, whether for conventional or unconventional resource play analysis, demands an integrated approach from explorationists. It is both inappropriate and misleading to suggest that the tectonic-thermal-sedimentologic evolution of any one basin is an established fact, or even that all basins submit to the same simple and equivocal models. Therefore, this five-day course does not passively present an inventory of basins of the world. Instead, this workshop provides the theory, methods, and active practice for participants to develop and optimize their own individual basin evaluation and modeling modus operandi. Incorporated as practical problems for workshop analysis and substantial team discussion are case histories and new findings from throughout the world utilizing geologic, geophysical, and geochemical data sets. In addition, students construct and interpret their own 1D and 2D basin models using BASINMOD, an industry standard of basin modeling software. One personal computer is provided at additional cost for each participant.	23-Sep	27-Sep-24	5	Houston
			11-Nov	15-Nov-24	5	London
<a href="#">Deep-water Turbidite Depositional Systems and Reservoirs - DWT</a>	Intermediate	This course provides a unique opportunity to examine modern, ancient, and subsurface examples of data from turbidite reservoirs. The process of iteration of data types, including analog data that was collected expressly to solve subsurface issues, will be offered to validate subsurface interpretations. The course combines review of state-of-the-art and historical theories for turbidite and debris-flow deposition and process including many case studies of reservoir architecture and sand-body quality and distribution with an introduction to new concepts, ideas, and methods in turbidite reservoir geology. Participants will be introduced to the limitations of conventional models for turbidite reservoirs and taught how to build enhanced predictive models using a combination of subsurface, outcrop, and modern sea-floor data. Through practical exercises and discussions, participants will experience the relative importance of a broad range of subsurface data, including the merits of different wireline log data for distinguishing lithostratigraphic units. 3D seismic data from a range of locations will illustrate the quality and level of reservoir resolution possible when using modern data. Modern sea floor data from several turbidite basins will be available and participants will receive instruction on interpretation, especially where sea floor data can be used as a proxy of sand distribution in reservoirs. Criteria for identification and interpretation of injected sandstones will be discussed, including explanation of their mechanisms of formation, and the understanding of their influence on reservoir characteristics.	30-Sep	4-Oct-24	5	Houston
<a href="#">Development Geology - DG</a>	Intermediate	Successful field appraisal, development, and management requires a fundamental understanding of the reservoir pore space distribution. Participants learn, through hands-on exercises, to compile a development plan that emphasizes optimal recovery. Emphasis is placed on rock, log and test data to distinguish reservoir and non-reservoir rock properties. Structural, stratigraphic, deposition and diagenetic concepts are used to locate drill sites and describe reservoirs. The input required to construct a geologic reservoir model is reviewed. Participants learn the importance of modifying development plans as a field becomes more mature. Techniques for mature field rejuvenation are discussed through case histories.	4-Nov	8-Nov-24	5	Houston
			12-Aug	16-Aug-24	5	London





## GEOLOGY

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Prospect and Play Assessment - PPA</a>	Intermediate	Assessment of plays and prospects is an important tool in managing financial and human resources. This fully revised and updated course is a fully modern approach to defining prospect and play volumetrics, uncertainties in defining these volumes and the risk that the accumulation exists. This practical course is adaptable to any workplace. The course evaluates other published approaches and contrasts them with the recommended procedures allowing the participants to choose the very best approach to resource evaluation. This course offers the industry quantitative, probabilistic play and prospect assessment procedures that are consistent and repeatable allowing for direct comparisons play to play or prospect to prospect.	16-Sep	20-Sep-24	5	Houston

## GEOPHYSICS

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Basic Geophysics - BGP</a>	Basic	This course is designed to familiarize anyone using seismic data with the nature of the data and what they specifically represent. One of the key goals of the course is to explain the large and confusing amount of jargon that is used by the geophysical community when they use seismic data. The course is supplemented by a large number of case histories that concretely illustrate the principles in the course material. These are updated with every course presentation to keep up with the rapidly developing technology in this field. Each section of the course is supported with a classroom exercise.	10-Jun	14-Jun-24	5	Houston
<a href="#">AVO, Inversion, and Attributes: Principles and Applications - AVO</a>	Intermediate	The subject of direct hydrocarbon indicators and AVO has rapidly expanded to include AVO inversion, offset AVO inversion, and 4D AVO inversion. A significant part of the course deals with rock physics as it relates to the other topics in the course. Further insight into the seismic data is supplied by looking at seismic attributes. The technology has provided the interpreter with a very new and exciting package of tools that allow us to look at the seismic image as being truly representative of both the rock properties and the pore filling material. This course is intended to provide the users with a clear and useable understanding of the current state of these technologies. The focus of the course is on both understanding and application.	23-Sep	27-Sep-24	5	Houston
<a href="#">3D Seismic Attributes for Reservoir Characterization - SARC</a>	Specialized	The primary objective of this course is to gain an intuitive understanding of the kinds of seismic features that can be identified by 3D seismic attributes, the sensitivity of seismic attributes to seismic acquisition and processing, and how independent seismic attributes are coupled through geology. We will also discuss alternative workflows using seismic attributes for reservoir characterization as implemented by modern commercial software and practiced by interpretation service companies. Participant discussion centered around case studies, attribute recipes for particular objectives, reservoir workflows and seismic attribute jeopardy exercises will be the main focus of the course.	23-Sep	27-Sep-24	5	London



PETROPHYSICS

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Introduction to Geomechanics for Unconventional Reservoirs - IGUR</a>	Foundation	This course provides an overview of petroleum geomechanics and its applications for development of unconventional plays. It is presented in three sections: (i) fundamentals of petroleum geomechanics, (ii) geomechanical characterization, stress modeling and building mechanical earth models, and (iii) geomechanical modeling for unconventional plays.	9-Sep	13-Sep-24	5	Houston
<a href="#">Well Log Interpretation - WLI</a>	Foundation	Familiarity with the purposes and optimum applications of well logs is essential for people forging their careers in the oil business. The instructor uses a novel approach to help participants develop a good grounding in understanding and applying well logging techniques. General principles of physics are presented to explain the functioning of modern logging tools. Wherever possible, the physics of logging measurements is related to everyday tools and applications. Participants develop an appreciation for the constraints and limitations of operating in the borehole environment. A number of actual log examples are related to basic principles in the description of reservoir properties such as porosity, mineralogy, formation factor, saturation, and hydrocarbon type for essentially clean reservoirs. Cross-plotting and reconnaissance techniques quickly and efficiently discriminate between water, oil, and gas. Participants gain realistic experience by working in teams on a comprehensive log interpretation exercise.	9-Dec	13-Dec-24	5	Houston
			11-Nov	15-Nov-24	5	London
			5-Aug	16-Aug-24	5	Virtual
<a href="#">Capillarity in Rocks - CIR</a>	Intermediate	This course covers conventional reservoirs. The course provides detailed knowledge of how capillarity affects hydrocarbon distribution in a reservoir rock, and how the magnitude of capillary forces can be used to deduce valuable information about rock properties including pore throat sizes, pore network geometry, porosity, and permeability. Several in-class exercises reinforce the course learning and provide students with experience using capillary pressure data for reservoir characterization. Exercises will be worked on the computer using spreadsheet software.	15-Jul	17-Jul-24	3	Houston
			22-Apr	3-May-24	3	Virtual
			12-Nov	21-Nov-24	3	Virtual
<a href="#">Integration of Rocks, Log and Test Data - ILC</a>	Intermediate	This course provides the background necessary to address the more complex reservoir evaluation and productivity challenges within exploration, field appraisal, and field development. The key fundamentals of rock properties, logging tools, and engineering data required to solve these problems are reviewed. The concepts are illustrated with a series of real world examples that become increasingly complex as knowledge is gained in the class. Emphasis is placed on solving problems in a workshop format.	11-Nov	15-Nov-24	5	Houston
<a href="#">Petrophysics of Unconventional Reservoirs - PUR</a>	Intermediate	Petrophysics is central to the integration of a wide spectrum of related geoscience and engineering disciplines. However, students should also be familiar with at least two or more of the following topics: horizontal well drilling, wireline logging and log analysis, coring and core analysis, petrophysics, geophysics, geochemistry, formation testing, rock mechanics, hydraulic fracturing, and petroleum economics.	8-Jul	10-Jul-24	3	Houston

## RESERVOIR ENGINEERING

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Basic Reservoir Engineering - BR</a>	Basic	Basic Reservoir Engineering is a course designed to help the participants develop a more complete understanding of the characteristics of oil and gas reservoirs, from fluid and rock characteristics through reservoir definition, delineation, classification, development, and production. Data collection, integration, and application directed toward maximizing recovery and Net Present Value are stressed. Basic reservoir engineering equations are introduced with emphasis directed to parameter significance and an understanding of the results. For nearly 40 years this has been one of our most popular and successful courses.	21-Oct	25-Oct-24	5	Denver
			2-Dec	6-Dec-24	5	Houston
			19-Aug	23-Aug-24	5	London
<a href="#">Applied Reservoir Engineering - RE</a>	Foundation	This course represents the core of our reservoir engineering program and the foundation for all future studies in this subject. Numerous engineering practices are covered, ranging from fluid and rock properties to simulation and field development planning. Proficiency in using Microsoft Excel to perform calculations and make graphs is desirable. Reservoir engineering is also presented in the context of a modern, multi-disciplinary team effort using supporting computer technology. An extensive manual and set of references are included.	6-May	17-May-24	10	Houston
			4-Nov	15-Nov-24	10	Houston
			29-Jul	9-Aug-24	10	London
<a href="#">Waterflooding A to Z - WF</a>	Foundation	Waterflooding has long been proven as the simplest and the lowest cost approach to maintaining production and increasing oil recovery from an oil reservoir. However, these benefits may fall far short of the expectations unless the time-tested concepts and practices are clearly understood and judiciously implemented. These concepts and practices aim at process optimization - reducing production cost while minimizing waste and maximizing oil recovery and income. This course is light on theory but heavy on proven and successful practices. Published case histories of projects around the world are reviewed to provide an understanding of divergent points-of-view, what works where, what fails when, and why. This training covers all elements of a waterflood project from A to Z - from source water selection to produced water disposal and everything in between. Participants are grouped into small multi-disciplinary teams. All classroom discussions and problem-solving sessions are handled in an asset management team format. Simulation studies are done in class to evaluate basic waterflooding physics as well as to optimize the development of a hypothetical field.	21-Oct	25-Oct-24	5	Houston
			12-Aug	16-Aug-24	5	London
			6-May	17-May-24	5	Virtual
<a href="#">Well Test Design and Analysis - WTA</a>	Foundation	This course stresses practical application of well test theory to design and interpret pressure transient tests. An integrated approach to well test interpretation is emphasized throughout the course. Class exercises involving hand calculations and simple spreadsheet applications will reinforce the concepts illustrated by both synthetic data sets and real field examples. Participants will be able to apply the knowledge and skills they gain in this course to their job assignments upon course completion. This course covers material for both conventional and unconventional reservoirs.	12-Aug	16-Aug-24	5	Houston



## RESERVOIR ENGINEERING

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Integrated Reservoir Modeling - GRD</a>	Intermediate	Starting with collecting information and assessing the need for additional data, the course will cover all the topics from structural and geological modeling, estimation of reservoir petrophysical properties using geostatistical tools, upscaling to simulator model and finally, proper history matching and future predictions in the presence of uncertainties. This course is important to reservoir modelers involved in any phase of the description work. This is intended to expose various geoscientists and engineers to the entire process of integrated reservoir description and the geostatistical tools that can be used to achieve the goals. The course will develop improved appreciation of the other disciplines' needs as well as the necessity of the feedback during the integration process.	9-Dec	13-Dec-24	5	Houston
<a href="#">Oil and Gas Reserves Evaluation - OGR</a>	Intermediate	This newly revised course will cover the definitions of, and uses for, oil and gas reserves estimates, and how to be compliant with each of the industry standard (SPE-PRMS) and regulator's (US SEC) versions of the reserves requirements. Participants will learn how geoscience and engineering evaluation methods should be used for compliance of reserves estimates, the differences in the evaluation assumptions between PRMS and SEC, and how the inherent uncertainties in reserve estimates are reflected by the categorization of reserves. Participants will learn how to handle reserve estimation-related situations properly, including documentation, audits, SEC enquiries, and evaluation ethics. This understanding is reinforced by working class problems and case studies. You will leave this course with confidence in your knowledge of compliance in reserves and the ability to show your understanding with reference documentation that is provided with the course.	11-Mar	15-Mar-24	5	Houston
<a href="#">Enhanced Oil Recovery with Gas Injection - EORG</a>	Specialized	This course gives a comprehensive understanding of immiscible gas and compositionally enhanced recovery processes and the important variables that influence the gas flooding process. The course contains both theoretical and practical material so that an engineer can apply learned knowledge to his/her unique reservoir. The course discusses process optimization to reduce production costs while maximizing oil recovery and income. Compositional simulation using equations-of-state are used to demonstrate how to optimize gas design parameters for water-alternating-gas floods. Published case histories from around the world are reviewed to provide an understanding of what works where, what fails, and why. The course is supplemented with the SPE Fundamentals of Enhanced Oil Recovery textbook and the monograph on Practical Aspects of CO2 Flooding.	3-Jun	7-Jun-24	5	Houston

## RESERVOIR ENGINEERING

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Gas Reservoir Management - GRM</a>	Specialized	Natural gas production has become a major part of every petroleum company's asset base and continues to grow in importance throughout the world. This course will help participants understand the engineering drivers on gas reservoir management and how a gas reservoir's value can be maximized through sound engineering practices. A full spectrum of gas reservoir engineering techniques is addressed and their application to a large variety of gas resource management options is discussed.	9-Sep	13-Sep-24	5	Houston
			10-Jun	21-Jun-24	5	Virtual
<a href="#">New Opportunities in Old Fields - NOF</a>	Specialized	Don't buy or sell a producing property before taking this course! There is nearly always upside in mature oil and gas fields that may be particularly profitable because of existing wells and infrastructure. The keys to successful exploitation of new opportunities include 1) recognition of the new opportunities, 2) quantification of the reserves, 3) evaluation of alternative methods of exploitation, and 4) economic analysis of depletion scenarios. Case studies and class problems address each of these key items and illustrate how new opportunities can be recognized and evaluated for many different types of oil and gas reservoirs. The computer-based problems will provide the delegate with utility programs and solution templates that can be used in the real world.	15-Jul	19-Jul-24	5	Houston

**WELL CONSTRUCTION/DRILLING**

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Drilling Fluids Technology - DFT</a>	Foundation	This course is designed for engineers and field personnel involved in the planning and implementation of drilling programs. The seminar covers all aspects of drilling fluids technology, emphasizing both theory and practical application. Hands-on laboratory exercises are included in the five-day Houston sessions. Drilling is a complex operation requiring the marriage of different technologies and disciplines. Today's drilling personnel must have a working knowledge of the drilling fluid in order to effectively drill a well. The course provides the fundamentals necessary to drill a well, whether it is a shallow well or a complex, high pressure well.	7-Oct	11-Oct-24	5	Houston
<a href="#">Fundamentals of Casing Design - FCD</a>	Foundation	Casing design is an integral part of a drilling engineer's work scope. This course provides a comprehensive overview of the design process, emphasizing the working stress approach currently used in the industry. On completion of this course, successful participants will be able to select casing points, identify tubular requirements and loads, and design and specify the required casing string. Through a combination of lecture and extensive hands-on examples, the fundamentals of casing design are imparted to the attendees. Estimation of standard and special loads is covered in detail. Standard theories of strength and failure are discussed as well as advanced considerations for combined loads. In addition safe handling, running and hanging practices are covered.	22-Jul	26-Jul-24	5	Houston
<a href="#">Well Design and Engineering - WDE</a>	Foundation	Well Design and Engineering integrates all major well design technologies from pre-spud to TD. Participants are actively engaged in every aspect of the technical activities required to deliver a cost-effective well plan while also gaining valuable perspective on how the overall process should be managed in a dynamic team environment. The workshop content is often customized to address technologies and practices that may be specific to a project or operational situation. The course delivery is carefully balanced to integrate technical lectures and group discussion with roughly half of each day allotted for the teams to apply what they have learned on the project well design. The single most important goal of the workshop is to draw the linkages between the design topics and to leave the participants with an understanding that each decision has influence on those that follow.	17-Jun	28-Jun-24	10	Houston
			2-Sep	13-Sep-24	10	Perth
<a href="#">Directional, Horizontal, and Multilateral Drilling - DHD</a>	Intermediate	This course builds a firm foundation in the principles and practices of directional drilling, calculations, and planning for directional and horizontal wells. Specific problems associated with directional/horizontal drilling such as torque, drag, hole cleaning, logging, and drill string component design are included. Participants will receive instruction on planning and evaluating horizontal wells based on the objectives of the horizontal well. The basic applications and techniques for multi-lateral wells are covered in the course. Additionally, they will become familiar with the tools and techniques used in directional drilling such as survey instruments, bottomhole assemblies, motors, steerable motors, and steerable rotary systems. Participants will be able to predict wellbore path based on historical data and determine the requirements to hit the target.	2-Dec	6-Dec-24	5	Houston



PRODUCTION & COMPLETIONS ENGINEERING

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Surface Production Operations - PO3</a>	Basic	This course presents a basic overview of all typical oilfield treating and processing equipment. Participants should learn not only the purpose of each piece of equipment but how each works. Emphasis is on gaining a basic understanding of the purpose and internal workings of all types of surface facilities and treating equipment. A major goal of this course is to improve communication among all disciplines, the field, and the office. Better communication should enhance operational efficiencies, lower costs and improve production economics. Example step-by-step exercises are worked together with the instructor to drive home the important points. Daily sessions include formal presentation interspersed with a good number of questions, discussion and problem solving.	9-Dec	13-Dec-24	5	Dubai
			22-Jul	26-Jul-24	5	Houston
<a href="#">Artificial Lift Systems - ALS</a>	Foundation	This course blends lecture, hands-on exercises, and seminar teaching styles to enhance learning. Participants work with software that allows them to design and analyze artificial lift designs, which points the way to improved efficiency, higher production and less downtime due to failures. Participants learn how to design and troubleshoot rod pumping, continuous gas lift, and electric submersible pump systems. Other methods such as PCP, plunger lift, jet pump, hydraulic pump, and intermittent gas lift are presented as viable AL techniques. Participants gain experience in solving problems by hand and also by using industry computer software. Troubleshooting is an important part of artificial lift operations and several typical surveillance problems are solved. The course emphasizes techniques to maximize production. New developments at various stages of application are also covered. A discussion of modifications necessary for horizontal or unconventional wells is included for all methods of lift discussed. Examples of how these techniques are being applied in producing unconventional wells are presented. Distinct features of all lift methods are presented allowing the attendee to know how to select the best lift for well or field conditions.	5-Aug	9-Aug-24	5	Houston
<a href="#">Completions and Workovers - CAW</a>	Foundation	Completions and Workovers provides an integrated introduction to many facets of completion and intervention technology. The material progresses through each of the major design, diagnostic, and intervention technologies concluding with some common remedial measures and well abandonment. The course focuses on the practical aspects of each of the technologies, using design examples - successes and failures - to illustrate the key points of the design and the risks/uncertainties. The overall objectives of the course focus on delivering and maintaining well quality.	30-Sep	4-Oct-24	5	Dubai
			11-Nov	15-Nov-24	5	Houston
			18-Nov	22-Nov-24	5	London
			6-May	17-May-24	5	Virtual

PRODUCTION & COMPLETIONS ENGINEERING

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Performance Analysis, Prediction, and Optimization Using Nodal Analysis - PO2</a>	Foundation	Nodal analysis views the total producing system as a group of components potentially encompassing reservoir rock/irregularities, completions (gravel pack, open/closed perforations, open hole), vertical flow strings, restrictions, multi-lateral branches, horizontal/hilly terrain flow lines/risers, integrated gathering networks, compressors, pump stations, metering locations, and market/system rate/pressure constraints. An improper design of any one component, or a mismatch of components, adversely affects the performance of the entire system. The chief function of a system-wide analysis is to increase well rates. It identifies bottlenecks and serves as a framework for the design of efficient field wide flow systems, including wells, artificial lift, gathering lines and manifolds. Together with reservoir simulation and analytical tools, Nodal analysis is used in planning new field development. Initially, this technology was applied using pressure traverse curves and simple PI models. Now state-of-the-art software programs have enabled a well-trained engineer to concentrate on matching field data, interpreting results, and understanding a system's interdependencies.	8-Jul	12-Jul-24	5	Houston
<a href="#">Production Operations 1 - PO1</a>	Foundation	PO1 represents the core foundation course of PetroSkills' production engineering curriculum and is the basis for future oilfield operations studies. Course participants will become familiar with both proven historical production practices as well as current technological advances to maximize oil and gas production and overall resource recovery. The course structure and pace apply a logical approach to learn safe, least cost, integrated analytical skills to successfully define and manage oil and gas operations. Applied skills guide the participant with a framework to make careful, prudent, technical oil and gas business decisions. Currently emerging practices in the exploitation of unconventional resources including shale gas and oil, and heavy oil and bitumen complement broad, specific coverage of conventional resource extraction.	21-Oct	1-Nov-24	10	Houston
			13-May	24-May-24	10	London
<a href="#">Production Technology for Other Disciplines - PTO</a>	Foundation	PTO is an asset team course as it introduces a broad array of important daily Production Technology practices to team members. Terminologies, expressions, axioms, and basic calculations regularly utilized by Production Techs are covered throughout the course. Emphasis is upon proven technology required to effectively develop and operate an asset in a multidiscipline development environment. Practical application of technology is emphasized. Both theory and actual field examples and well completion programs are studied along with class problems, exercises, and videos. Nodal analysis examples to assess well performance are set up. Well completion equipment and tools are viewed and discussed. Participants work several exercises such as basic artificial lift designs, acidizing programs, gravel pack designs, and fracturing programs. Shale gas and oil development challenges are thoroughly explained. Horizontal and multilateral technology is presented.	2-Dec	6-Dec-24	5	Kuala Lumpur

PRODUCTION & COMPLETIONS ENGINEERING

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Unconventional Resources Completion and Stimulation - URCS</a>	Foundation	This course will focus on some of the key elements of well completions and stimulation practices as they apply to horizontal wells in tight and unconventional reservoirs. Optimization studies will be shown and used to highlight the importance of lateral length, number of fractures, inter-fracture distance, fracture half-length, and fracture conductivity. These results will be used to discuss the various completion choices such as cased and cemented, open hole with external casing packers, and open hole pump and pray techniques. This course also will address key risks to horizontal wells and develop risk mitigation strategies so that project economics can be maximized. In addition, tight and unconventional gas field case studies will be used to illustrate the application of these design, optimization, and risk mitigation strategies for horizontal wells in tight and unconventional gas reservoirs.	7-Oct	11-Oct-24	5	Houston
<a href="#">Unconventional Resources Completion and Stimulation Diagnostics - URCS D</a>	Foundation	This course will focus on the key completion and fracture stimulation diagnostic technologies and techniques. These technologies and techniques include the use of far field technologies, near wellbore technologies, indirect diagnostic technologies, and more importantly the integration of multiple diagnostic techniques. The pros and cons of each diagnostic technology and application will be discussed. Tight and unconventional case studies will be used to illustrate the application of the diagnostic technologies and methods to the assessment of the completions and fracture stimulations. Example problems will be worked throughout the course both individually and as a group in order to reinforce the class learnings.	17-Jun	21-Jun-24	5	Houston
<a href="#">Acidizing Applications in Sandstones and Carbonates - ASC</a>	Intermediate	Although acidizing is the oldest method of well stimulation, it is often applied with mixed results. It remains, however, a valuable tool for improving well productivity. The key to acidizing success is in the understanding of how it works, the optimum conditions for its application, and proper evaluation of well response after the acidizing treatment. The instructor will present many of the practical aspects of acidizing applications and help provide a better understanding of acidizing as a tool for enhancing well performance.	30-Sep	4-Oct-24	5	Houston





PRODUCTION & COMPLETIONS ENGINEERING

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Electrical Submersible Pumps - ESP</a>	Intermediate	ESPs have advantages over some of the other artificial lift methods because they can generate a higher formation drawdown and achieve a higher rate. However, their performance is impacted by gas interference and formation sand production, both of which have to be addressed when setting ESPs in production wells. This course will familiarize the user with the ESP system and it's optimum application. All components will be described in detail. Discussion is encouraged concerning experiences of successes and failures. Comparisons are made to other lift methods to help facilitate the optimum method selection. Problems related to solids production, gas handling and viscosity are addressed. Best practices are stressed throughout so that a long lasting system can be designed to achieve optimum well performance. SCADA controls and VSDs are discussed. Participants will learn the function of each component, and important considerations about installation, operation, and removal of failed equipment. Participants will be able to evaluate the design of a system for current and future conditions, analyze an installed system, and review multiple operational aspects of the ESP system. Although the course uses industry computer software for design and analysis, much of the material is devoted to best practices, which is useful to both engineers and technicians. Deviation is not such a problem with ESPs but is discussed nonetheless. The common practice of using ESPs in unconventional wells with sharply declining production rates is also discussed.	21-Oct	25-Oct-24	5	Midland
<a href="#">Flow Assurance for Offshore Production - FAOP</a>	Intermediate	Flow assurance is a critical component in the design and operation of offshore production facilities. This is particularly true as the industry goes to deeper water, longer tiebacks, deeper wells, and higher temperature and pressure reservoirs. Although gas hydrate issues dominate the thermohydraulic design, waxes, asphaltenes, emulsions, scale, corrosion, erosion, solids transport, slugging, and operability are all important issues which require considerable effort. The participant will be presented with sufficient theory/correlation information to be able to understand the basis for the applications. This intensive five-day course has considerable time devoted to application and design exercises to ensure the practical applications are learned.	2-Dec	6-Dec-24	5	Houston
			14-Oct	18-Oct-24	5	Kuala Lumpur
<a href="#">Formation Damage: Causes, Prevention, and Remediation - FD</a>	Intermediate	Formation damage seems to be inevitable and it is costing your company money! Whether formation damage can be prevented, removed economically, or must be accepted as the price for drilling and producing a well will depend upon many factors. Concerns for formation damage have been with our industry from the early days. These concerns become more prevalent as we embark on more challenging reservoirs utilizing even more challenging drilling, completion, and production methods. Additional concerns relate to the common lost production or injectivity following workovers in these challenging environments. These subjects and many more are addressed in this fast-paced, informative course covering all aspects of formation damage.	18-Nov	22-Nov-24	5	Houston
			30-Sep	4-Oct-24	5	Kuala Lumpur



PRODUCTION & COMPLETIONS ENGINEERING

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Gas Production Engineering - GPO</a>	Intermediate	Learn the latest methods for calculating gas well performance from reservoir to sales. Reservoir performance covers the fundamentals of reservoir gas flow and details the best methods for testing wells, according to the time and money available. Reserve calculations and diagnostic testing from production data are covered. The importance of flow regime and non-Darcy flow on test design and interpretation is emphasized for new wells and for the possibility of improving the performance of older wells. Also discussed are performances of tight formations, horizontal wells, fractured wells, and methods for estimating gas reserves. Participants will learn to calculate and determine the effect of each system component on total well performance, which permits optimum sizing of tubing, flowlines, separators, and compressors. Problem-solving sessions allow participants to evaluate field problems. Participants receive complimentary software at the end of the course.	4-Nov	8-Nov-24	5	Calgary
			3-Jun	7-Jun-24	5	Houston
			30-Sep	11-Oct-24	5	Virtual
<a href="#">Gas Well Deliquification - GWD</a>	Intermediate	As gas wells deplete, the velocity in the tubing drops and eventually liquids from the well and from condensation begin to accumulate in the tubing. This increase of liquids in the tubing adds back pressure on the formation, which in turn reduces flow or even stops flow all together. The course introduces this problem and discusses how to recognize liquid loading as opposed to other possible well problems. The course will then cover the various methods of solving the problem of liquid loading, showing how to apply the various solutions and the advantages and disadvantages of each method. Solution methods include use of surfactants, velocity strings, compression, use of plunger lift, various other pumping methods, gas lift, and the injection of fluids below a packer so gas can flow up the annulus. Participants will learn to recognize the problems and symptoms of liquid loading and determine which methods can solve the problem and select the optimum method/s after attending the course.	4-Nov	8-Nov-24	5	Houston
<a href="#">Hydraulic Fracturing Applications - HFU</a>	Intermediate	The course reviews the basic concepts of hydraulic fracturing and the broad applications of the technique. Fracturing technology benefits and limitations in all types of sandstone and carbonate reservoirs are explained. It considers the critical components of the fracturing process, and it expands on the steps and data input requirements to effectively select stimulation candidates, plan, design, and implement hydraulic fracturing treatments. The use of modeling as an important tool to design and analyze treatments, how it can be effectively used in practical applications, and its limitations are explained. In addition to the technical presentation, the course contains many practical exercises and class problems based on case histories.	16-Sep	20-Sep-24	5	Houston

PRODUCTION & COMPLETIONS ENGINEERING

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Production Chemistry - OGPC</a>	Intermediate	This course covers the selection and use of chemicals in oil and gas production. As oilfields mature more water is produced which requires the use of more chemicals to maintain production. Chemicals used for controlling corrosion, emulsions, foaming, mineral scales, paraffins (waxes), asphaltenes, gas hydrates, hydrogen sulfide scavengers, and water clarifiers are covered. The course includes methods to determine the need for chemical treating, how to select the proper chemicals, and how testing for chemical compatibility with the formation and other chemicals is performed. Requirements for environmentally friendly products and products for deep water production are discussed. The course will include how the use of chemicals can prevent problems, improve production and economics, and extend the life of the production equipment.	26-Aug	30-Aug-24	5	Houston
			10-Jun	14-Jun-24	5	Virtual
<a href="#">Horizontal and Multilateral Wells: Completions and Stimulation - HML2</a>	Specialized	Successful multilateral and horizontal wells require new considerations, interdisciplinary planning, and special techniques. This intense course focuses on the critical need for a proper understanding of all aspects of horizontal and multilateral design and completion. It also addresses basic stimulation design and analysis concepts. It is designed for those planning or working with horizontal and multilateral wells and interested in effective use of the latest technology. Basic understanding of important reservoir characteristics, hole stability, formation damage, crucial zonal isolation, and hydraulic fracturing are just some of the critical issues addressed by this course. Hydraulic fracturing aspects of unconventional resources plays, including conductivity, proppant selection, and practices, are discussed. A combined practical and technical theme is employed, with emphasis on economy and efficiency in designing, completing, and producing horizontal and multilateral wells.	11-Mar	15-Mar-24	5	Houston

PROCESS FACILITIES

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Carbon Capture from Stationary Industrial Sources - PF-82</a>	Basic	This course provides an overview of the emerging field of CO2 capture from stationary industrial sources - primarily combustion operations. CO2 capture is part of the CCUS chain - CO2 Capture, Utilization and Storage - wherein CO2 is prevented from entering the atmosphere by removing it from flue gas or other vent streams, transported to an appropriate location, and injected deep underground into secure geologic formations. CCUS is viewed as a key component of Green House Gas (GHG) mitigation by IEA, as part of a migration to long term, sustainable energy systems. The focus of applications reviewed is operations in the Oil and Gas (O&G) industry and the Power industry. The course material is general in nature but is framed around process technologies for capture - most of which are used in the natural gas processing industry.	11-Nov	13-Nov-24	3	Houston
			22-Jul	26-Jul-24	3	Virtual
<a href="#">Introduction to Oil and Gas Production Facilities - PF-2</a>	Basic	PF-2 is a versatile overview of oil and gas production facilities. The primary focus is on the different production facility types, processes utilized, and the primary equipment involved. The scope of the discussion ranges from an overview of the oil and gas industry, hydrocarbon phase behavior characteristics, and different reservoir types, to product specifications and the processes used to meet these. Other facilities considerations are addressed, such as process safety and downstream processing that may impact the production facility selection and operation.	23-Sep	25-Sep-24	3	Houston
<a href="#">Applied Water Technology in Oil and Gas Production - PF-21</a>	Foundation	This course provides an overview of the main water handling systems typically encountered in upstream (E&P) production operations, both onshore and offshore. The chemistry of the main water-related problems of mineral scales, corrosion, bacteria, and oily water will be reviewed both from the theoretical and practical aspects. Produced water treatment equipment and typical water quality specifications as well as water injection and disposal systems will be reviewed. An exercise will be given to identify typical system problems and to apply the knowledge gained to propose solutions. Emphasis will be placed on understanding and resolving operational problems in process equipment.	9-Dec	13-Dec-24	5	Houston
<a href="#">Fundamental and Practical Aspects of Produced Water Treating - PF-23</a>	Foundation	This course covers topics related to Produced Water Treatment in upstream oil and gas operations. Produced water composition and physical properties are covered. Water quality requirements for various disposal methods are addressed, including onshore surface discharge, offshore discharge to sea, and reinjection for disposal or waterflood. Regulatory requirements and analytical methods used to monitor and ensure regulatory compliance are discussed. Treatment technology is presented along with practical considerations for selecting and operating typical water treatment equipment. Representative process flow diagrams illustrate equipment selection, design features, layout, and processes. Chemical treatment options are also considered.	14-Oct	18-Oct-24	5	Houston

PROCESS FACILITIES

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Fundamentals of Process Safety - PS-2</a>	Foundation	The course will cover the fundamentals of Process Safety for all staff levels of processing facilities in the upstream and downstream oil, gas, and petrochemical industry. To identify how different disciplines and roles can have an impact on Process Safety performance, there is a rolling case study (Project COLEX) throughout the course that involves the installation of a separator vessel. The associated Process Safety considerations and implications are explored and discussed at the various stages, from design to full operation.	30-Sep	4-Oct-24	5	Houston
			9-Dec	13-Dec-24	5	London
<a href="#">Oil Production and Processing Facilities - PF-4</a>	Foundation	The emphasis of this course is on oil production facilities - from the wellhead, to the delivery of a specification crude oil product, to the refinery. Both onshore and offshore facilities are discussed. Produced water treating and water injection systems are also covered. Solution gas handling processes and equipment will be discussed at a relatively high level. In addition to the engineering aspects of oil production facilities, practical operating problems will also be covered, including emulsion treatment, sand handling, dealing with wax and asphaltenes, etc. Exercises requiring calculations are utilized throughout the course. The course intended to complement the G-4 Gas Conditioning and Processing course, focused on the gas handling side of the upstream oil and gas facilities area.	22-Apr	3-May-24	10	Denver
			28-Oct	8-Nov-24	10	Houston
			30-Sep	11-Oct-24	10	Kuala Lumpur
			29-Jul	9-Aug-24	10	London
<a href="#">Process Safety Engineering - PS-4</a>	Foundation	PS-4 is a one week, competency driven, fundamental course covering the broad scope of process safety engineering. While many of the examples are drawn from upstream and midstream oil and gas facilities, the principles are applicable across the hydrocarbon processing industries. The course is designed to accelerate the participants process safety learning curve. Serious process safety incidents occur somewhere in the industry nearly every week, and few if any are new; essentially the same ways of going wrong are found repeatedly, in different operating contexts. One of the main objectives of PS-4 is to develop knowledge of the more common ways of going wrong, and one of the ways of doing that is discussion of major incidents, including some of those that have affected our regulatory environment. PS-4 graduates should be able to see their facilities and projects with a new perspective, a new sense of not only how things work, but also of how things fail. They will also have an appreciation of the reasons for some of our process safety practices and regulations, which will contribute to more consistent and better reasoned application of them.	29-Apr	3-May-24	5	Houston
			2-Dec	6-Dec-24	5	Kuala Lumpur
			21-Oct	25-Oct-24	5	London
			19-Aug	23-Aug-24	5	Perth

PROCESS FACILITIES

Course Name	courselevel	About	StartDate	EndDate	Days	location
<a href="#">Risk Based Process Safety Management - HS45</a>	Foundation	This course introduces process safety management in the oil and gas industry, the elements and benefits of process safety management systems, and tools for implementing and managing a system. In this course the participant will learn to use tools and techniques for managing process safety. The Center for Chemical Process Safety's (CCPS) book titled "Guidelines for Risk Based Process Safety" or "RBPS Guidelines" will be the text for this course. Participant-centered exercises and selected case studies will be used to build on the concepts that CCPS advocates for risk based process safety. Throughout the course, participants will be challenged to think how their process safety management system can be enhanced and modified to meet the concepts of risk-based decision making. An individual action plan will be developed to apply the information from the course to the workplace.	9-Sep	13-Sep-24	5	Dubai
			4-Nov	8-Nov-24	5	Houston
			22-Jul	26-Jul-24	5	London
<a href="#">Relief and Flare Systems - PF-44</a>	Intermediate	This intensive course provides a comprehensive overview of relief and flare systems for oil and gas processing facilities. The course begins with the need for pressure control/overpressure protection, continues with the key engineering and design aspects including code considerations, and concludes with selecting and sizing the components of a relief and flare system. The material of the course is applicable to onshore field production facilities, pipelines, gas plants, terminals, refineries, and offshore production facilities. The use of dynamic simulations for relief load determination is discussed and demonstrated.	2-Dec	6-Dec-24	5	Dubai
			7-Oct	11-Oct-24	5	Houston
			16-Sep	20-Sep-24	5	Kuala Lumpur
			15-Jul	19-Jul-24	5	London
			4-Nov	15-Nov-24	5	Virtual
<a href="#">CO2 Surface Facilities - PF-81</a>	Specialized	This course emphasizes the effect of carbon dioxide on the selection and operation of equipment (separators, compressors, and dehydrators), as well as sweetening process equipment. This program, first introduced in 1985, assists those working with carbon dioxide or high carbon dioxide content natural gas. This course is particularly applicable to those persons who operate and/or design enhanced oil recovery (EOR) facilities using CO2 as a miscible agent. Physical and thermodynamic property data for carbon dioxide/natural gas mixtures are discussed. Calculations are performed to illustrate principles and techniques.	6-Nov	8-Nov-24	3	Houston
			13-May	23-May-24	3	Virtual



## GAS PROCESSING

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Overview of Gas Processing - G-2</a>	Basic	This course is designed for a broad audience and is engaging and interactive, utilizing basic technical exercises and terminology to communicate key learning points. This course is recommended for those needing an overview of the industry and common processes and equipment used.	15-Oct	17-Oct-24	3	Houston
<a href="#">LNG Short Course: Technology and the LNG Chain - G-29</a>	Basic	This LNG Short Course is designed for participants requiring moderate technical coverage, coupled with information on LNG commerce and all parts of the LNG Value Chain. Over 5-days, the course covers technical LNG basics and facility operation topics, plus technical, design, and commercial issues. Selected exercises and syndicates are used to reinforce the main topics of LNG trade and technology.	8-Jul	12-Jul-24	5	Houston
			11-Nov	15-Nov-24	5	Perth
			9-Sep	20-Sep-24	5	Virtual
<a href="#">Gas Conditioning and Processing - G-4</a>	Foundation	The Campbell Gas Course has been the standard of the industry for more than 52 years. Tens of thousands of engineers have attended our G-4 program, considered by many to be the most practical and comprehensive course in the oil and gas industry. The Campbell Gas Course textbooks, Volumes 1 and 2, are routinely updated to reflect evolving technologies in this broad industry. Both hand-methods and computer-aided analysis are used to examine sensitivities of technical decisions. To enhance the learning process, about 30 problems will be assigned, reviewed, and discussed throughout the course. Problems will be solved individually and in teams. This course is ideal for Production and processing personnel involved with natural gas and associated liquids, to acquaint or reacquaint themselves with gas conditioning and processing unit operations. This course is for facilities engineers, process engineers, senior operations personnel, field supervisors, and engineers who select, design, install, evaluate, or operate gas processing plants and related facilities. A broad approach is taken with the topics.	7-Oct	18-Oct-24	10	Aberdeen
			22-Apr	3-May-24	10	Denver
			22-Jul	2-Aug-24	10	Houston
			2-Dec	13-Dec-24	10	Houston
			25-Nov	6-Dec-24	10	Kuala Lumpur
			10-Jun	21-Jun-24	10	London
			26-Aug	6-Sep-24	10	London
			17-Jun	28-Jun-24	10	Perth
			4-Nov	15-Nov-24	10	Stavanger
5-Aug	23-Aug-24	10	Virtual			

## GAS PROCESSING

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Gas Conditioning and Processing - LNG Emphasis - G-4 LNG</a>	Foundation	This is the LNG-industry version of our popular G-4 course, with expanded coverage of refrigeration and LNG technologies. The course includes in-depth information on basic natural gas conditioning and processing. This is mainly the core G-4 Campbell Gas Course curriculum in an LNG context with the expanded refrigeration coverage. The course covers relevant details of both the mixed refrigerant (APCI) and cascade (ConocoPhillips) processes in LNG liquefaction. Reference is made to other liquefaction processes including Mixed Fluid Cascade Process, Dual Mixed Refrigerant Process, and Nitrogen (single or dual) Cycles being developed for FLNG projects. This is followed by higher level coverage of the LNG value chain consisting of a gas liquefaction section; LNG run-down to LNG storage; loading berth for LNG export; LNG shipping; and LNG receiving and regasification terminals. Versions of this course have been taught in many of the world's base-load and peak-shaving LNG plants, such as Australia, Indonesia, Malaysia, Norway, Qatar, UK, and West Indies.	10-Jun	21-Jun-24	10	Houston
			18-Nov	29-Nov-24	10	Perth
<a href="#">Debottlenecking Gas Processing Facilities - G-33</a>	Intermediate	This course will cover how to establish a methodology for performing a debottlenecking study of a gas processing facility, as well as how to identify and evaluate debottlenecking options for specific equipment types and process systems.  The course will be primarily structured in a workshop format. The first part of the course (~1 day) will focus on defining the scope and establishing a logical methodology for performing a debottlenecking study. The remainder of the course (~4 days) will be spent determining the current capacities of an existing facility's major equipment and processing units, followed by identification and evaluation of the relevant debottlenecking options. A hypothetical 200 MMSCFD gas processing plant will be used as the basis for the study work. The plant is a mechanical refrigeration (propane) plant featuring inlet fluids reception facilities, condensate stabilization, inlet compression, amine gas sweetening, cooldown/NGL recovery including a de-ethanizer and propane refrigeration system, glycol injection and regeneration, and sales gas compression. Major process support/utility systems will be covered at a high level.	10-Jun	14-Jun-24	5	Houston
			16-Sep	20-Sep-24	5	London
<a href="#">Gas Treating and Sulfur Recovery - G-6</a>	Intermediate	This course emphasizes process selection, practical operating issues, technical fundamentals, and integration of the sweetening facilities into the overall scheme of gas processing. Sulfur recovery and tail gas processes are also covered, including standard Claus configurations, SuperClaus, EuroClaus, SCOT, etc. Special design and operation topics, such as trace sulfur compound handling and the importance of H <sub>2</sub> S:CO <sub>2</sub> ratio, are covered as well. Related topics reviewed during the course include liquid product treating, corrosion, materials selection, and NACE requirements.	11-Nov	15-Nov-24	5	Houston
			30-Sep	4-Oct-24	5	London

## GAS PROCESSING

Course Name	Level	About	StartDate	EndDate	Days	location
<a href="#">LNG Commercial Operations - G-51</a>	Intermediate	<p>This course gives a concise introduction to the LNG business. Thereafter, the elements of the LNG value chain are described and analysed. A Business Activity Model along the value chain will be developed and discussed in depth, covering the following key processes:</p> <p>Buy Gas -&gt; Transport Gas -&gt; Liquefy Gas -&gt; Sell LNG/Products -&gt; Ship LNG -&gt; Regasify LNG</p> <p>Contracts defining the Commercial aspects for each of these activities will be examined and the associated Commercial operations, will be described. Gas Supply Agreements (GSA), Sale &amp; Purchase Agreements (SPA), Ship Chartering (VOY), and Terminal Use Agreements (TUA) s are included.</p> <p>Good practice for developing and executing Annual Gas Supply and Annual Product Delivery (ADP) plans and Specific Delivery Schedules (SDS) will be shown within the framework of a so-called Integrated Activity Planning &amp; Scheduling. Roles and responsibilities of relevant positions, requiring a multi-functional approach, will be examined. Most of these critical positions are located at the interfaces of Operational, Shipping, Commercial functions and their seamless cooperation under expert guidance is essential for optimizing the value chain for the any company having an interest in the LNG value chain.</p>	8-Apr	12-Apr-24	5	Houston
			7-Oct	11-Oct-24	5	London
<a href="#">LNG Shipping Economics and Freight Calculations - G-52</a>	Intermediate	<p>This course starts with a concise review of the LNG business. Thereafter, the elements of the LNG Shipping Industry (who are the owners, operators, how is the financing, chartering practices and agreements etc) are described and their individual economics analysed.</p> <p>Types of LNG ships, the relevant industry trends in terms of Containment and Propulsion systems are discussed in depth, and the interplay between ship characteristics (size, type of propulsion, containment and insulation impacting the LNG and fuel balances) and shipping/charter costs and rates are analysed in depth. An excel spreadsheet model will be built to capture these elements to calculate the overall costs.</p> <p>Leveraging on model hands-on exercises and case studies, this course will equip the participants with the opportunity to develop their skill in this area by tackling real-life cases. Excel model will be provided to the participants for their private use. Finally, the relevant management systems will be discussed (to see how to track shipping performance and compare with competitors through benchmarking). The course will end with an LNG and Shipping Outlook, discussing the future trends and challenges.</p>	14-Oct	17-Oct-24	4	London

## GAS PROCESSING

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">LNG Value Chain and Economics - G-53</a>	Intermediate	<p>This course starts with a concise introduction to the LNG business. Thereafter, the elements of the LNG value chain are described, and their individual economics analysed. A Business Activity Model along the value chain will be developed and discussed in depth, covering the following key processes:</p> <p>Buy Gas -&gt; Transport Gas -&gt; Liquefy Gas -&gt; Sell LNG/Products -&gt; Ship LNG -&gt; Regasify LNG</p>	13-May	17-May-24	5	Houston
		<p>The integrated chain economics will then be developed and quantified. A hands-on group workshop/exercise developing the economic case of a full-size Liquefaction project will be carried out, considering the forecasted cash flows throughout the project life, the location of the plant, its markets, project sensitivities and profitability assessment.</p> <p>Excel based tools/models (LNG Liquefaction project development NPV analyses, Shipping Freight Calculations and Economics) will be provided to the participants for these exercises and their future personal use.</p>	2-Dec	6-Dec-24	5	London
<a href="#">Troubleshooting Gas Processing Facilities - PF-49G</a>	Intermediate	<p>This course will cover how to establish and apply a general troubleshooting methodology as well as how to conduct process/equipment specific troubleshooting related to gas production and processing facilities. Definitions of good/normal performance will be discussed for each process/ equipment type covered. Data gathering, validation and utilization procedures will be discussed. Criteria to use when evaluating possible problem solutions will also be covered. Real-world exercises will be utilized throughout the class to reinforce the learning objectives. Both onshore and offshore facilities will be discussed. It is assumed that course participants have a solid understanding of how typical gas production and processing facilities work, including the commonly used processes and equipment involved.</p>	2-Dec	6-Dec-24	5	Houston
			23-Sep	27-Sep-24	5	London
<a href="#">Troubleshooting Gas Processing Facilities - PF-49G</a>	Intermediate	<p>This course will cover how to establish and apply a general troubleshooting methodology as well as how to conduct process/equipment specific troubleshooting related to gas production and processing facilities. Definitions of good/normal performance will be discussed for each process/ equipment type covered. Data gathering, validation and utilization procedures will be discussed. Criteria to use when evaluating possible problem solutions will also be covered. Real-world exercises will be utilized throughout the class to reinforce the learning objectives. Both onshore and offshore facilities will be discussed. It is assumed that course participants have a solid understanding of how typical gas production and processing facilities work, including the commonly used processes and equipment involved.</p>	4-Nov	8-Nov-24	5	Perth

## MECHANICAL ENGINEERING

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Corrosion Management in Production/Processing Operations - PF-22</a>	Foundation	This comprehensive course will cover the main causes of corrosion in upstream oil and gas operations, as well as monitoring and mitigation methods. The various corrosion mechanisms give rise to a number of different forms of corrosion damage, which will all be considered. Participants will learn about the different aspects that make fluid corrosive, what enhances corrosion rates, and how to estimate corrosion rates of a given environment through analysis of the chemical and physical characteristics of the system; review approaches to selecting materials and coatings for corrosion resistance for different conditions and applications (including the use of NACE MR0175/ISO 15156); and be introduced to cathodic protection systems and (CP) surveys, coating systems, and many other corrosion mitigation techniques. The participant will learn how to select and utilize corrosion inhibitors for different systems, and how to select and apply corrosion monitoring techniques to create an integrated monitoring program. The course content is based on a field facilities engineering point of view, as opposed to a more narrowly-specialized corrosion engineering or chemistry viewpoint. It provides an appropriate balance of necessary theory and practical applications to solve/mitigate corrosion-related problems.	29-Jul	2-Aug-24	5	Houston
			11-Nov	15-Nov-24	5	Virtual
<a href="#">Fundamentals of Pump and Compressor Systems - ME-44</a>	Intermediate	This is an intensive course providing a comprehensive overview of pumps and compressor systems. The focus is on equipment selection; type, unit, and station configuration; and integration of these units in the process scheme and control strategy in upstream and midstream oil and gas facilities. The material of the course is applicable to field production facilities, pipelines, gas plants, and offshore systems.	7-Oct	11-Oct-24	5	Houston
			9-Dec	13-Dec-24	5	Kuala Lumpur
			15-Jul	19-Jul-24	5	London
<a href="#">Piping Systems - Mechanical Design and Specification - ME-41</a>	Intermediate	This intermediate level course for engineers and piping system designers reviews the key areas associated with the design of piping systems for oil and gas facilities. The course is focused on four areas: codes and standards, pipe materials and manufacture, piping components, and piping layout and design. Applicable piping codes for oil and gas facilities (ISO, B31.3, B31.4, B31.8, etc.), pipe sizing calculations, pipe installation, and materials selection are an integral part of the course. The emphasis is on proper material selection and specification of piping systems.	18-Nov	22-Nov-24	5	Houston
			22-Jul	26-Jul-24	5	London
			16-Sep	27-Sep-24	5	Virtual
<a href="#">Compressor Systems - Mechanical Design and Specification - ME-46</a>	Specialized	This 5-day, specialized level course is for facility design engineers, operations engineers, and technicians seeking an in-depth understanding of centrifugal, reciprocating, and screw compressors. This course provides basic knowledge of compressor types and associated auxiliary systems, mechanical design of equipment, operating and performance characteristics, control and monitoring systems, maintenance practices, and codes and standards.	17-Jun	28-Jun-24	5	Virtual

## INSTRUMENTATION, CONTROLS & ELECTRICAL

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Instrumentation, Controls and Electrical Systems Overview for Non-Electrical Engineers - ICE-21</a>	Basic	This course provides an introduction and overview of electrical systems, instrumentation, process control, and control/safety systems typically encountered in oil and gas facilities. The focus is to understand terminology, concepts, typical equipment configurations, and common pitfalls in order to improve communication with electrical and I&C professionals.	4-Nov	8-Nov-24	5	Houston
			14-Oct	18-Oct-24	5	London
			12-Aug	23-Aug-24	5	Virtual
<a href="#">Instrumentation and Controls Fundamentals for Facilities Engineers - IC-3</a>	Foundation	This course applies fundamental instrumentation and control engineering principles to oil and gas facilities design and operation, and is designed to accelerate the development of new Facilities Instrumentation and Control Engineers. Through the use of individual and group problem solving, attendees will learn about field measurement devices, valves and actuators, documentation, programmable logic controllers, power supplies, PLC, SCADA, DCS, SIS, hazardous areas, and installation methods.	8-Jul	12-Jul-24	5	Denver
			11-Nov	15-Nov-24	5	Houston
<a href="#">Flow and Level Custody Measurement - IC-73</a>	Intermediate	This course is designed to acquaint users with the problems and solutions for high accuracy transfer of liquid and gas petroleum products from supplier to customer. These needs have been brought about by major changes in manufacturing processes and because of several dramatic circumstantial changes such as: the increase in the cost of fuel and raw materials; the need to minimize pollution; and the increasing pressures being brought to bear to adhere to the requirements for health and safety.	7-Oct	11-Oct-24	5	Houston
			15-Jul	26-Jul-24	5	Virtual
<a href="#">Power System Design Fundamentals for Electrical Engineers - E-41</a>	Intermediate	This course is focused on getting electrical engineers up to speed with the essential principles of electrical safety, power system design, studies, protection and equipment specification as well as operations support and maintenance. Additionally, this course introduces the participants to the critical elements of industry and typical company standards as well common project execution and project assurance principles. The course focuses on foundational concepts rather than regional code and standard requirements, but does address the typical equipment, requirements and methods used in both international (IEC, EN, BS, etc.) and North American (NEC, IEEE) standards related to design and safe operation.	15-Apr	26-Apr-24	10	Houston
<a href="#">Practical PID Control and Loop Tuning - IC-74</a>	Intermediate	This workshop provides instrumentation, automation, and process engineers and technicians with the basic theoretical and practical understanding of regulatory control systems and how this can be applied to optimize process control in terms of quality, safety, flexibility, and costs. Centered on the ISA-recommended PC-Control LAB simulator, participants will learn through active participation using exercises, questionnaires, and a series of 16 practical simulation sessions covering: process reaction; tuning methods; diagnostic tools; effect of different algorithms; surge tank level control; analysis of such problems as valve hysteresis, stiction and non-linearities and the impact on controllability; and integral windup.	9-Dec	13-Dec-24	5	Houston





PIPELINES

Course Name	Level	About	StartDate	EndDate	Days	location
<a href="#">Onshore Pipeline Facilities - Design, Construction and Operations - PL-42</a>	Foundation	Successful onshore pipeline businesses require personnel competent in fully integrated approaches to evaluation, planning, design, construction, operations, and asset integrity management. This intensive, 5-day foundation level course explores best practices for developing and maintaining pipeline systems that maximize life cycle reliability; employee, public, and environmental safety; and cost effectiveness. Design and team exercises are an integral part of this course.	2-Sep	6-Sep-24	5	Dubai
			24-Jun	28-Jun-24	5	Houston
			28-Oct	8-Nov-24	5	Virtual
<a href="#">Terminals and Storage Facilities - PL-44</a>	Foundation	This 5-day, foundation level course reviews key issues associated with development, design, construction, and operation of terminals and storage facilities for liquid hydrocarbons and NGLs. The course focuses on six areas: 1) terminal codes and siting constraints, 2) terminal design and equipment layout, 3) types of storage and selection criteria, 4) design considerations for loading racks, fire protection, vapor recovery, blending equipment, and water treatment, 5) detailed design of storage tanks, vessels, and caverns, and 6) operations and maintenance. Safety, quality control, system reliability, availability, and regulatory compliance are integrated throughout the course. Case studies and team exercises are used to reinforce key points.	2-Dec	6-Dec-24	5	Houston

## PROJECT MANAGEMENT

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Petroleum Project and Program Management Essentials - P3ME</a>	Foundation	Petroleum companies often use projects to develop the skills of early career project professionals. This course covers the essential skills of petroleum project and program management and provides an opportunity to apply those skills to your project. You will be able to utilize fit-for-purpose prioritization techniques and control tools to facilitate successful outcomes. The specific training received in planning, scheduling and risk management will help the early career professional make the best decisions possible. Participants will learn how the project management, HSE, engineering, operations, maintenance, procurement/supply chain, and transportation disciplines relate to one another and what tools are available to ensure interfaces among key stakeholders are managed. The course is taught using a combination of instruction, facilitated discussion, and team exercises using real-world examples related to facilities, drilling and maintenance. The exercises will include both individual and group activities that will provide each participant with a hands-on application of the principles and practices discussed throughout the course.	28-Oct	30-Oct-24	3	Houston
<a href="#">Managing Brownfield Projects - FPM42</a>	Intermediate	Why is it so difficult to manage projects inside operating facilities? Keeping the scope from growing is a constant battle. Operations priorities and maintenance needs hamper work productivity. To be successful, brownfield projects need strong control, effective liaison, and good interface management. Experienced instructors will share tools and techniques that will help you work in this dynamic, operations-centric project environment.	28-Oct	1-Nov-24	5	Houston
<a href="#">Petroleum Project Management: Principles and Practices - PPM</a>	Intermediate	Successful petroleum operations need a blend of technology, business savvy, and people skills. If you have a firm grasp of exploration or production technology, boost its impact by applying project management techniques. Running a staged program that integrates reservoir modelling, production estimating, drilling, and facility design is challenging. The tools and techniques covered in this course will help you meet that challenge.	9-Sep	13-Sep-24	5	Houston
			4-Nov	8-Nov-24	5	London
<a href="#">Project Management for Engineering and Construction - FPM22</a>	Intermediate	Many petroleum projects fail to meet their authorized cost, schedule or operability targets. To be successful, today's project leader needs a comprehensive set of technical, business and interpersonal skills. This course addresses those critical skills. Seasoned instructors tackle the issues and challenges found in concept selection, development planning, facility design, procurement, and construction activities. The specific training received in schedule and cost management, risk mitigation, and the proper use of scarce resources (people and materials) will help you make better decisions.	15-Apr	19-Apr-24	5	Houston
			21-Oct	25-Oct-24	5	Houston

PROJECT MANAGEMENT

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Systems Completion, Commissioning and Start-up - CSU</a>	Intermediate	This course will show you how to be successful in the defining phase of a project. Did you know that from the perspective of an investor, it is the Commissioning & Start-Up (CSU) phase that defines the project as a success or failure? When a project has been fully commissioned and started-up, it is likely the project will also be a financial success, with investors receiving their expected returns. When a project has not been fully commissioned and is then started-up, it is highly unlikely the project could ever be a financial success. From an investor's perspective, the project is a disaster. Why don't more people with many years of project experience already know this? It could be because the training and education to build essential skills and knowledge has not been there, and for many Operators and Contractors, still doesn't exist - until now.	22-Oct	31-Oct-24	3	Virtual
<a href="#">Advanced Project Management - FPM62</a>	Specialized	Mega projects are complex. A program composed of these super projects is highly complex. For a very large project, addressing linked issues is key to improving the chances of success. In a larger program, these key issues interact producing unexpected results. Instructors will explore critical issues in contracting, decision making, and facility design. Interface control and risk reduction are examined. Non-technical problems in stakeholder relations, partner ventures, and approvals, are also tackled.	19-Aug	23-Aug-24	5	Houston
<a href="#">Construction Management for the Project Professional - FPM64</a>	Specialized	This course addresses the skills necessary to interface with and effectively manage field construction. While construction projects are addressed, the project engineer that must manage engineering, procurement, and especially field construction, will find the course particularly useful. The course addresses how to effectively manage field construction to deliver the project on time and on budget. While many projects do front end loading effectively, projects ultimately fail due to poor execution or engineering/construction. With a focus on construction, this course provides the tools necessary to establish the proper field organization to manage engineering and procurement, which are two key inputs to construction success.	30-Sep	2-Oct-24	3	Houston
<a href="#">Petroleum Project Changes and Claims Workshop - PPCC</a>	Specialized	This course will cover all key aspects of project changes and claims encountered throughout a project lifecycle. The focus will be on how to manage and control changes, take steps to prevent disputes and claims, and how to prepare claims. Different contract types will also be covered along with the required terms and conditions for project changes, disputes and claims.	11-Nov	13-Nov-24	3	Houston

## OFFSHORE & SUBSEA

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Overview of Offshore Systems - OS-21</a>	Basic	This five-day course will accelerate the learning and productivity of individuals with little to no experience working in the offshore oil and gas industry. The course provides an overview of field development concepts and explains how offshore structures and facilities function as integrated systems. The content includes the full range of water depths from shallow water to ultra-deepwater. All major components required for offshore developments such as fixed and floating platforms, drilling and workover rigs, pipelines, risers, process and utilities and construction equipment are discussed. The importance of life-cycle considerations during development planning is emphasized. Individual and group exercises, including a case study, are used throughout the course. The course instructors are experienced offshore managers.	22-Jul	26-Jul-24	5	Houston
			15-Jul	26-Jul-24	5	Virtual
			18-Nov	29-Nov-24	10	Virtual
<a href="#">Overview of Subsea Systems- SS-2</a>	Basic	An overview of subsea components and how they are integrated into field architecture is provided during this five-day course. Individuals will develop a basic understanding of the various subsea components used in all water depths, from shallow to ultra-deep water. The participants job productivity will be accelerated by learning how the components are combined and integrated into subsea field developments. Installation and flow assurance are emphasized as key drivers in subsea design. The course emphasizes a systems approach to design. Individual and group exercises are used throughout the course, including a case study to develop field architecture recommendations, basic component selection, and high level project execution plans for a subsea development. Course instructors are experienced offshore managers.	7-Oct	11-Oct-24	5	London
<a href="#">Flow Assurance for Offshore Production - FAOP</a>	Intermediate	Flow assurance is a critical component in the design and operation of offshore production facilities. This is particularly true as the industry goes to deeper water, longer tiebacks, deeper wells, and higher temperature and pressure reservoirs. Although gas hydrate issues dominate the thermohydraulic design, waxes, asphaltenes, emulsions, scale, corrosion, erosion, solids transport, slugging, and operability are all important issues which require considerable effort. The participant will be presented with sufficient theory/correlation information to be able to understand the basis for the applications. This intensive five-day course has considerable time devoted to application and design exercises to ensure the practical applications are learned.	2-Dec	6-Dec-24	5	Houston
			14-Oct	18-Oct-24	5	Kuala Lumpur

## DOWNSTREAM ENGINEERING

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Decision Analysis (DA) Training for Downstream and Chemical Installations</a>	Foundation	Decision Analysis (DA) Training for Downstream and Chemicals provides an interactive three-day workshop designed for groups evaluating major financial investments, alternative business strategies, key projects or complex decisions aimed at creating business value in the refining and chemicals industries. The workshop is designed to introduce industry best practices in decision-making, with attention to resolving cross-functional ambiguities and dealing directly with the major uncertainties and risks that occur in this industry. The course will provide you with the hands-on training needed to create a common language and a working understanding of the process toward enabling superior business decisions.	17-Sep	19-Sep-24	3	London

## OPERATIONS & MAINTENANCE

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Applied Maintenance Management - OM-21</a>	Basic	No matter the price of oil, safe, efficient operations require well managed, integrated asset management. Effective, well organized maintenance management is the key. In this course, participants will receive a sound, integrated, basic knowledge of the maintenance function and how to progress towards world-class performance. Individual action plans will carry course learning into the work environment.	13-May	17-May-24	5	Houston
<a href="#">Basic Refinery &amp; Petrochemical Operations - SIM-BRP</a>	Foundation	This interactive 2-day course combines elements of high fidelity, generic process simulators as well as a student-driven learning model centered around the INSTO Methodology. The course teaches operators how to build a mental model of various processes and stress critical thinking skills for operators that can be brought back to the control room. In this course each trainee will have access to their own generic simulators including a Heat Exchanger, Flash Drum, and Distillation simulator. Trainees will have an opportunity to startup each piece of equipment as well as spend time troubleshooting common malfunctions relating to exchanger and separating units. Tower operations that promote both safety as well as optimization are stressed throughout the course. The material of the course is applicable to refineries, petrochemical sites, chemical plants, and any other facilities that operate distillation columns.	19-Mar	20-Mar-24	2	Lake Charles
			11-Jun	12-Jun-24	2	Lake Charles
			27-Aug	28-Aug-24	2	Lake Charles
			3-Dec	4-Dec-24	2	Lake Charles

OPERATIONS & MAINTENANCE

Course Name	Level	About	StartDate	EndDate	Days	location
<a href="#">Maintenance Planning and Work Control - OM-41</a>	Foundation	No matter what the price of oil is, safe facilities operations require effective maintenance work control. ISO 55000 (PAS 55) is the asset management standard everyone is moving towards. This course is designed to build competency in Work Control as a primary skill set required to achieve these new standards. It will focus on the six phases of work management: work identification, planning, prioritization, scheduling, execution, and history capture. These essential skills are the key components of integrity management, safety, efficient resource utilization, and reliable operation. A pre and post self-assessment will be used to measure competency improvement. In order to improve facility asset management, each participant will develop an action plan to help their organizations in the long-term effort to become more efficient and safe.	21-Oct	25-Oct-24	5	Dubai
			12-Aug	16-Aug-24	5	Houston
<a href="#">Process Plant Reliability and Maintenance Strategies - REL-5</a>	Intermediate	This course is designed to teach reliability engineering skills as they apply to improving process system reliability and developing maintenance strategies. You will use modern software and analysis methods to perform statistical analysis of failures and model system performance, plus develop maintenance and reengineering strategies to improve overall performance.	12-Aug	16-Aug-24	5	Houston
<a href="#">Turnaround, Shutdown and Outage Management - TSOM</a>	Intermediate	Scheduled turnarounds are difficult to manage. Managing a surprise shutdown or outage is like firefighting. Firefighters succeed because they know what strategies work and are highly trained to handle complex, risky situations. Uncertainty and complexity abound when a plant is down. Extra work can appear when equipment is opened and inspected. Integrating project work increases the challenge. Experienced instructors show you how to control scope uncertainty, tackle the complexity of integrating project work, and get the facility restarted.	26-Aug	28-Aug-24	3	Houston



## ENERGY BUSINESS

Course Name	Level	About	StartDate	EndDate	Days	location
<a href="#">Basic Petroleum Economics - BEC</a>	Basic	Could you answer the following three questions for your next project? What will it cost? What is it worth? Will it earn sufficient profit? Before undertaking any project, these questions should be answered. This course will provide the fundamentals necessary to enable you to do so. Budgeting and financing, accounting, and contractual arrangements, which also significantly impact the economic viability of a project, are covered. Participants practice cash flow techniques for economic evaluations and investigate frequently encountered situations. Participants are invited to submit their own economic problems (in advance), if appropriate. Each participant will receive Economics of Worldwide Petroleum Production, written specifically for PetroSkills courses.	14-Oct	18-Oct-24	5	Houston
			24-Jun	28-Jun-24	5	London
			2-Dec	13-Dec-24	5	Virtual
<a href="#">Essential Leadership Skills for Technical Professionals - OM23</a>	Basic	In the oil and gas industry, skillful and competent leadership is extremely important for safety, productivity, and asset management; with new emphasis on leaders, new communication technologies, increased focus on safety, information overload, workforce dynamics, asset integrity, and many other concerns which challenge even the most proficient leader/manager. How do we blend these new challenges with tried and true wisdom of success? There are skills to learn that will help you be more effective, with less stress. In this seminar/workshop you will explore your internal drivers and learn how to combine them with new skills for greater effectiveness. This seminar/workshop will include self-assessment, discussion, lecture, readings, role-playing, games, video examples, and creation of participant action plans.	19-Aug	23-Aug-24	5	Houston
<a href="#">Contracts and Tenders Fundamentals - SC-41</a>	Foundation	This three-day course is designed to help companies award the right contracts to the best providers. Contracting involves many roles that must work together to negotiate, document, and ensure a reliable supply of goods and services for capital projects and ongoing operations. Everyone involved in contracting with suppliers and service providers must understand the entire process, the keys to success, and what is required of their role if contracts are to be effective in managing supply risks. Materials and exercises in this course are specifically built around oil and gas industry issues.	26-Aug	28-Aug-24	3	Houston

**ENERGY BUSINESS**

Course Name	Level	About	StartDate	EndDate	Days	location
<a href="#">Cost Management - CM</a>	Foundation	Few problems threaten the petroleum businesses more than uncontrolled costs. Economic realities have made it necessary for most companies to operate with a lean and mean philosophy. Industries previously operating under regulatory rules, which allowed them to pass on all costs to the customer, now face a changed regulatory environment. As the price of our products fluctuates widely, the most vulnerable companies are those that are ineffective in understanding and managing their costs. Historically energy companies have relied on the efficiency of their operations to drive company profitability. The ability to properly manage costs is now paramount in a company's success and even their ultimate survival. As the energy industry goes through monumental changes with huge swings in prices and costs, the companies that can identify efficiencies and inefficiencies will be able to react to the challenges of the global market place, thus generating higher profits. The course will cover costs management from the basics to the most recent events and trends, using relevant exercises, timely case studies, and role-playing techniques. This seminar is an introduction to Practical Cost Management techniques designed to help the participant better understand the underlying dynamics of cost, which will lead to better decision making concerning products and services, work flows, capital investments, as well as the day-to-day monitoring of the business.	18-Nov	22-Nov-24	5	Houston
<a href="#">International Petroleum Contracts - IPC</a>	Intermediate	You will learn the philosophy, evolution, and fundamentals of international petroleum contracts and have an opportunity to see how each of these actually works. You will take part in life-like negotiating sessions mastering many negotiating techniques, where a mistake is a learning experience not a disaster. As you prepare for each session, you use a computerized economic model to assess the value of contract terms. This enables improved planning of negotiating strategies to achieve the desired goals by parties on both sides of the negotiating table. The classes include participants from both national oil companies and foreign contractors, which adds further realism to the exercises. Host governments and outside contractors are on opposite sides of the negotiating table, but they are not adversaries. A win-win business arrangement should be the objective of both parties, as a signed contract makes them partners. A viable contract cannot be negotiated without an effective understanding of the underlying economics. Negotiating strategies will determine contractual terms ultimately defining the economic benefits to be realized.	21-Oct	25-Oct-24	5	Houston
<a href="#">Advanced Decision Analysis with Portfolio and Project Modeling - ADA</a>	Specialized	Quality forecasts and evaluations depend upon well-designed project and portfolio models that are based upon clear decision policy, sound professional judgments, and a good decision process. In this course participants learn to build good models. We use the familiar Microsoft Excel spreadsheet as the platform for project and risk assessment models. Add-in software provides Monte Carlo and decision tree capabilities. The course emphasis is on the evaluation concepts and techniques, rather than particular software programs.	9-Dec	13-Dec-24	5	Houston
			19-Aug	23-Aug-24	5	London



## ENERGY TRANSITION

Course Name	Level	About	StartDate	EndDate	Days	Location
<a href="#">Fundamentals of Net-Zero and Renewables - NG-20</a>	Basic	This course gives an overview of the various available technologies involved in the ongoing shift in energy production away from fossil fuels and towards energy sources that have lower carbon footprints. Participants will gain an understanding of the pros and cons of each technology, along with the political and business drivers for reduction in CO2 emissions. Anyone involved in the strategic planning and implementation of strategies that satisfy national and international and company requirements for reductions in greenhouse gas emissions in power generation environments will find this course valuable.	28-Oct	30-Oct-24	3	Dubai
			20-Aug	22-Aug-24	3	Houston
			13-May	15-May-24	3	London
<a href="#">Introduction to Greenhouse Gas Management, Accounting and Reporting - NG-51</a>	Foundation	<p>Most governments are taking steps to reduce Greenhouse Gas (GHG) emissions based on international and governmental standards and recommendations such as The Greenhouse Gas Protocol, ISO14064/14067/14080, CARB, ASHRAE/ICC 240P, IFRS S1 and IFRS S2 (ISSB) and NIST among others. This is done through national policies that include the introduction of emissions trading programs, voluntary programs, carbon or energy taxes, and regulations and standards on energy efficiency and emissions.</p> <p>Organizations must be able to understand and manage their GHG risks if they are to ensure long-term success and to be prepared for future national or regional climate policies. A well-designed and maintained corporate GHG inventory (carbon footprint) is essential to manage these risks effectively.</p> <p>The course is a combination of theory, case studies, and practical exercises. The course is also available as an online course available on-demand.</p>	2-Sep	6-Sep-24	5	Amsterdam
			21-Oct	25-Oct-24	5	Dubai
			10-Jun	14-Jun-24	5	London