PETROTEACH

World Class Training Solutions

2026 Training Guide

Welcome to PetroTeach

PetroTeach is a Norwegian company that provides a diverse range of advanced and customized courses, advisory services, and learning tools to address the professional needs of the oil and gas industry. PetroTeach employs advanced training methodologies and tools, engaging top-notch trainers and instructors in the field. We firmly believe that the most effective learning processes involve a combination of lectures, discussions, exercises, real-field cases, and demonstrations.

Our training approach is comprehensive, designed to encompass the diverse demands, capacities, and preferences of our participants. It aligns with well-known learning styles, offering flexibility from classroom settings to in-house training and distance learning. In addition to classroom training, all courses can be conducted in-house at your company's premises, tailored to the company's operations, participant profiles, and any specific subject or project proposals. These customized courses efficiently strengthen team player skills in a short timeframe, proving to be cost-effective and convenient. PetroTeach has significant expertise in Virtual Instructor-Led Training (VILT).

The team of instructors at PetroTeach comprises seasoned lecturers from both industry and academia, bringing years of practical experience in the oil and gas industry and research institutes. Additionally, they have a commendable track record of mentoring junior staff and successfully delivering advanced and technical courses.

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Course Calendar (2025)

Course - Geoscience	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Fundamentals of Carbonate Reservoirs (GEO 100)	Dubai		9-13										
	Doha									7-11			
	Online	12-16							3-7				
Sedimentological Input to Static Carbonate Reservoir Model (GEO 101)	Stavanger								10-14				
	Dubai			16-20									
	Online					4-8		13-17					
Exploration and Development for Carbonate Reservoirs (GEO 102)	Doha		16-20										
	Muscat			2-6									
	Online							6-10		7-11			
Modifying Pore Pressure Theory for Practical Use (GEO 103)	Stavanger	19-23											
	Oslo									21-25			
	Online		9-13						17-21				
Analysis of Facies Using Petrophysical Data (GEO 104)	Oslo		9-13										
	Moscow				6-10								
	Online			2-6				13-17					
Structural Geology (GEO 105)	Oslo								10-14				
	Moscow			16-20									
	Online				20-24			20-24					
Advanced Petroleum Geochemistry (GEO 106)	KL								3-7				
	Dubai			10-14									
	Online						8-12	6-10					
Advance Reservoir Geochemistry (GEO 107)	KL	19-23											
	Dubai								17-21				
	Online		16-20					20-24					
Practical Geophysics Course for Geologists (GEO 108)	Oslo									23-25			
	Oslo								26-28				
Seismic Data Acquisition and Quality Control (GEO 109)	London								5-7				
	Moscow							21-23					
	Online			4-6							5-7		
Crustal Structure of Sedimentary Basins (GEO 110)	London									9-11			
	Moscow		24-26										
	Online			25-27					12-14				
International Reporting and Mineral Resource Estimation (GEO 111)	London									15-17			
	Moscow												8-10
	Online							1-3	26-28				
Fractured Reservoirs Characterization (GEO 112)	Abu Dhabi		9-13										
	Dubai											2-6	
	Online			16-20				6-10					
Geological and Reservoir Engineering Aspects of Fractured Reservoirs (GEO 113)	Dubai								3-7				
	Algeria			2-6									
	Online		2-6				1-5						
Seismic Reservoir Characterization (GEO 114)	Copenhagen								3-7				
	Oslo											2-6	
	Online									7-11	19-23		
Geosteering: Fundamentals, Planning, and Implementation (GEO 115)	Stavanger											4-6	
	Online										7-9		
Advanced Analysis of Carbonate Systems (GEO 116)	Stavanger									21-25			
	Abu Dhabi								3-7				
	Online										5-9	2-6	
Carbonate Depositional Systems and Reservoir Sedimentology (GEO 117)	London		2-6										
	Abu Dhabi												7-11
	Online				6-10					7-11			

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Course - Geoscience	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Exploration and Development for Sandstone Reservoirs (GEO 118)	Dubai								17-21				
	Doha											2-6	
	Online									7-11	19-23		
Geomodelling Workflow (GEO 119)	London		2-6										
	Stavanger												7-11
	Online				6-10					7-11			
Introduction to Basin Modelling (GEO 120)	Stavanger								17-21				
	Abu Dhabi											2-6	
	Online									7-11	19-23		
Reservoir Modeling Using Geostatistics (GEO 121)	Stavanger								3-7				
	Abu Dhabi											2-6	
	Online									7-11	5-9		
Rock Physics for Quantitative Seismic Reservoir Characterization (GEO 122)	Stavanger								17-21				
	Abu Dhabi												7-11
	Online									14-18		2-6	
3D Printing for Geological Data (GEO 123)	Istanbul		5-6										
	Oslo				2-3								
	Online			4-5				7-8					
Machine Learning & Deep Learning for Geophysical Applications (GEO 124)	Istanbul		9-13										
	Oslo				20-24								
	Online			2-6				6-10					
Advanced Seismic Acquisition & Processing (GEO 125)	Paris		12-15										
	Trondheim					4-8							
	Online			9-13				9-13					
Advanced Seismic Interpretation (GEO 126)	Stavanger		9-13										
	Amsterdam				20-24								
	Online		23-27				22-26						
Advanced Velocity Modelling (GEO 127)	Stavanger		2-4										
	Amsterdam				15-18								
	Online		17-19				17-19						
AVO & Inversion (GEO 128)	Doha												
	Abudhabi		26-30		8-12								
	Online		10-16				10-16						
Electric & Electro-Magnetic for Geophysical Applications (GEO 129)	Oslo		19-21										
	Muscat				2-4								
	Online		5-7				4-6						
Geophysics for CO_2 Monitoring (GEO 130)	Dubai		11-13										
	Stavanger				8-10								
	Online	26-28					1-3						
Geophysical Data Acquisition & Processing (GEO 131)	Dubai												
	Stavanger		9-13		6-10								
	Online	5-9					1-5						
Geophysics for Data Scientists (GEO 132)	Dubai									7-11			
	Stavanger										5-9		
	Online								3-7			2-6	
Geophysics for Geothermal Energy (GEO 133)	Amsterdam									14-16			
	Dubai										12-14		
	Online								10-12			9-11	
Gravity & Magnetics (GEO 134)	Oslo									14-16			
	Doha										12-14		
	Online								10-12			9-11	
Multi-Physics (GEO 135)	Trondheim				6-10								
	Muscat									21-25			
	Online						22-26					6-10	
Quantitative Reservoir Characterization (GEO 136)	Stavanger				13-17								
	Dubai									14-18			
	Online					15-19						13-17	

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Course – Petrophysics	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cased Hole Loging With Approach to Logging Surveillance for EOR (PPH 200)	Dubai			2-6								2-6	
	Cairo												
	Online				20-24						19-23		
Advanced Open Hole Logging (PPH 201)	Cairo						8-12						
	Muscat								17-21				
	Online							6-10		7-11			
Borehole Images Applications (PPH 202)	Dubai								3-7				
	KL				6-10								
	Online		23-27							7-11			
Geomechanical Aspects of Well Construction (PPH 203)	Stavanger		2-6										
	Oslo									14-18			
	Online			16-20							5-9		
Geomechanics for Field Development (PPH 204)	Stavanger		9-13										
	Aberdeen										19-23		
	Online						15-19			7-11			
Sand Control and Sand Management (PPH 205)	Paris				20-24								
	Stavanger											2-6	
	Online		16-20								5-9		
Introduction to Petrophysics Using GeoFit (PPH 206)	London									7-11			
	Stavanger		23-27										
	Online						22-26				5-9		
Advanced Petrophysics (PPH 207)	Abu Dhabi				46183								
	Cairo							20-24					
	Online		2-6						46088				

Course - Drilling	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Introduction to Drilling Engineering (DRL 300)	Bangkok		2-6										
	Online			2-6									
Advanced Casing Design (DRL 301)	Dubai			2-6									
	Online				6-10								
Advanced Air and Foam Drilling (DRL 302)	Stavanger				22-24								
	Online		16-18										
Applied Drilling and Well Engineering (DRL 303)	London		2-13										
	Online						1-12						
Deepwater Drilling Operations (DRL 304)	Aberdeen										19-23		
	Online									7-11			
Drillstring Design (DRL 305)	Aberdeen											3-6	
	Online										5-8		
HPHT Well Design and Operations (DRL 306)	Dubai												14-18
	Online									7-11			
Managed Pressure Drilling (DRL 307)	Dubai									21-23			
	Online										7-9		
Stuck Pipe Prevention (DRL 308)	Dubai							9-10					
	Online								13-14				
Fundamental Principles of Permanent Plug and Abandonment (P&A) of Wells (DRL 309)	Oslo								27-28				
	Stavanger	22-23											
	Online		19-20					9-10					
Acid Stimulation Techniques (DRL 310)	Stavanger										5-9		
	Online									7-11			
Advanced Slickline Training (DRL 311)	Oslo					18-22							
	Online										5-9		
Casing and Cementing (DRL 312)	Paris											3-6	
	Online		17-20										
Coiled Tubing and Its Applications (DRL 313)	Amsterdam		9-13										
	Online									7-11			
Drilling Engineering for Non-Drilling Engineers (DRL 314)	London				1-3								
	Online						25-27						

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Course - Drilling	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Drilling Optimization (DRL 315)	Aberdeen								3-7				
	Online											9-13	
E-Line Operations Cased Hole for Completion Operation (DRL 316)	Istanbul			9-13									
	Online										19-23		
Stuck Pipe Causes, Prevention and Remediation (DRL 317)	Stavanger							6-10					
	Online			2-6									
Workover and Completions, Well Intervention (DRL 318)	Dubai	27-28											
	Online				22-23								
Advanced Casing Design and Tubing (DRL 319)	Cairo											2-6	
	Online										5-9		
Cementing Technologies (DRL 320)	Doha							6-10					
	Online										5-9		
Completion and Production Engineering (DRL 321)	Muscat								10-14				
	Online											2-6	
Directional, Horizontal and Sidetrack Drilling (DRL 322)	Oslo									7-11			
	Online		2-6										
Fundamentals of Drilling Engineering (DRL 323)	Cairo											2-6	
	Online									7-11			
Drillstring Design (DRL 324)	Dubai		16-20										
	Online								17-21				
Stuckpipe Prevention (DRL 325)	Abu Dhabi												6-10
	Online									14-18			
Well Integrity Management (DRL 326)	Copenhagen										19-23		
	Online											16-20	
Managing Lost Time (DRL 327)	Aberdeen					19-22							
	Online						12-Sep						
Introduction to Drilling (DRL 328)	Stavanger				23-24								
	Online		3-Feb										
HP-HT Drilling Operations (DRL 329)	London					8-Apr							
	Online						5-Jan						
Offshore Managed Pressure Drilling (DRL 330)	Abu Dhabi										9-Jun		
	Online									15-18			
Deepwater Drilling (DRL 331)	Amsterdam							13-17					
	Online										19-23		
Stuck Pipe, Fishing and Side-Tracking (DRL 332)	Amsterdam	14-16											
	Online			18-20									
Casing and Tubular Design (DRL 333)	Aberdeen						15-19						
	Online								17-21				
Well Integrity (DRL 334)	Stavanger									2-4			
	Online											18-20	
Oil Field - Primary Cementing (DRL 335)	Aberdeen											3-6	
	Online												8-11
Latent Cause Analysis (DRL 336)	Stavanger									8-11			
	Online							6-9					
Advanced Drilling Fluids, Pressure and Hydraulics Management (DRL 337)	Abu Dhabi										5-9		
	Online												7-11
W-CAT: Well Control Assurance Training (DRL 338)	Stavanger		2-6										
	Online				6-10								
Digitalization in Drilling and Automated Operation (DRL 339)	Stavanger								3-6				
	Online					19-22							
Control Mud Level, MPD, Riserless Mud recovery and MPC (DRL 340)	Stavanger						9-12						
	Online					12-15							
Applied Drilling Engineering (DRL 341)	Stavanger									7-10			
	Online											3-6	
Drilling Automation (DRL 342)	Stavanger									9-10			
	Online											18-19	

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Course – Reservoir Eng.	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Fundamentals of Reservoir Engineering (RES 400)	Accra				13-17								
	Online					11-15							
Fundamentals of Natural Gas Engineering (RES 401)	KL			9-13									
	Mumbai												14-18
	Online				6-10				17-21				
Fluid Flow in Porous Media and Its Application in Reservoir Engineering (RES 402)	Accra										26-30		
	Amsterdam							20-24					
	Online	12-16							17-21				
Natural Gas Engineering (RES 403)	Accra									2-3			
	Accra				16-17								
	Online					4-5					7-8		
Applied Reservoir Engineering (RES 404)	Oslo		2-6										
	Paris										19-23		
	Online			2-6					3-7				
Introduction to Petroleum Engineering (RES 405)	Oslo		9-13										
	Paris										5-9		
	Online			16-20					10-14				
Petroleum Engineering for Non-Petroleum Engineers (RES 406)	London	12-16											
	KL										26-30		
	Online			9-13						14-18			
Advanced Core Analysis (RES 407)	KL									7-11			
	Dubai						1-5						
	Online							6-10			5-9		
Advanced Topics in Reservoir Modelling (RES 408)	KL									7-11			
	Dubai				13-17								
	Online					11-15					19-23		
Advanced EOR Gas Injection (RES 409)	Stavanger											2-6	
	Dubai						15-19						
	Online							20-24		7-11			
PVT Properties of Reservoir Fluids (RES 410)	Stavanger				20-24								
	Doha										26-30		
	Online					18-22			3-7				
Advanced PVT and EOS Modelling (RES 411)	Doha				6-7								
	Stavanger	20-21											
	Online					11-12			3-7				
Fundamentals of Enhanced Oil Recovery (RES 412)	Mumbai		16-20										
	Bangkok							13-17					
	Online	26-30							3-7				
Applied Rock Typing (RES 413)	Dubai			23-24									
	KL										1-2		
	Online				1-2				3-4				
Geological Model Validation (RES 414)	Dubai				23-24								
	KL												10-11
	Online					7-8						5-6	
Determination of Reservoir Initial State for Reservoir Simulation (RES 415)	Stavanger							23-24					
	Dubai						11-12						
	Online								13-14				2-3
Reservoir Engineering of Fractured Reservoirs (RES 416)	Khartoum							6-8					
	Accra												14-16
	Online								10-12			2-4	
Heavy Oil Reservoir Engineering (RES 417)	Khartoum	22-23											
	Accra						9-10						
	Online							23-24				19-20	
Practical Application of Geostatistics in Reservoir Simulation (RES 418)	Amsterdam								5-7				
	Abu Dhabi	14-16											
	Online							1-3				4-6	

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Course – Reservoir Eng.	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Reservoir Characterization (RES 419)	Dubai									7-11			
	Stavanger						8-12						
	Online							20-24			19-23		
Best Practice for Upscaling in Reservoir Simulation (RES 420)	Abu Dhabi												14-16
	Stavanger						3-5						
	Online								26-28	2-4			
Practical Reservoir Engineering and Flow Simulation (RES 421)	Abu Dhabi											15-19	
	Stavanger						1-5						
	Online							6-10		7-11			
Practical in Geomodelling, Flow Simulation, Economics and Uncertainty in Field Development (RES 422)	London											16-20	
	Dubai						22-26						
	Online							6-10		21-25			
Integrated Geomodelling, Flow Simulation, Economics and Uncertainty in Field Development (RES 423)	London	12-16											
	Stavanger							6-10					
	Online					11-15			3-7				
SAGD and Solvent-SAGD Design and Analysis in Thermal Recovery (RES 424)	Amsterdam						11-12						
	KL											12-13	
	Online			18-19		4-5							
Steam-Solvent and Electromagnetic Heating Analysis and Design in Thermal Recovery (RES 425)	Moscow										15-16		
	Amsterdam						23-24						
	Online							1-2				19-20	
The Use of Analogous to Estimate Recovery Efficiencies and Value for Oil and Gas Acquisitions (RES 426)	Stavanger										8-9		
	London						9-10						
	Online	15-16				14-15							
PVT Phase Behavior and Properties of Reservoir Fluids (RES 427)	Abu Dhabi											2-6	
	Stavanger					18-22							
	Online		9-13	2-6									
Capillarity in Porous Media at Different Scale (RES 428)	Abu Dhabi										13-16		
	Oslo				21-24								
	Online	13-16										17-20	
Best Practices of Enhanced Oil Recovery Projects (RES 429)	Doha										19-23		
	Istanbul						1-5						
	Online							6-10					14-18
Waterflooding Management (RES 430)	Cairo								3-7				
	KL	12-16											
	Online										5-9	2-6	
Integrated Core and Well Logging Data for Better Reservoir Characterization (RES 431)	Amsterdam							20-24					
	London											16-20	
	Online								17-21				14-18
Petroleum Engineering for Non-Engineers (RES 432)													
	Stavanger							13-17					
	Online	12-16				4-8							
Hydraulic Fracturing (RES 433)	Paris									21-25			
	Oslo											23-27	
	Online					4-8			17-21				
Underground Gas Storage (RES 434)	Dubai										7-9		
	Istanbul						24-26						
	Online							15-17				23-25	
An Integrated Approach to PVT and Phase Behaviour Reservoir Fluids (RES 435)	Dubai								5-7				
	Istanbul					6-8							
	Online						3-5					4-6	
Waterflood Management (RES 436)	London										5-7		
	Muscat											4-6	
	Online										27-29		2-4
Reservoir Management: Uncertainties and Risks (RES 437)	Paris										5-8		
	Stavanger											17-20	
	Online										14-17		7-10

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Course – Production Eng.	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gas Lift Well Optimization (PRO 501)					6-10								
	Bangkok											2-6	
	Online					4-8							14-18
Integrated Production Data Analysis and Modelling (PRO 502)	Oslo			2-6									
	Paris										19-23		
	Online				6-10				24-28				
FPSO Design and Operation (PRO 503)	KL											2-6	
	Stavanger						8-12						
	Online							6-10					14-18
Assessment and Mitigation of Formation Damage (PRO 504)	Stavanger		9-13										
	Accra					18-22							
	Online			9-13			15-19						
Fundamentals of Integrated Production Modelling (IPM) (PRO 505)	Doha										19-23		
	Stavanger					4-8							
	Online						1-5					16-20	
Production Optimization Using Nodal Analysis (PRO 506)	Stavanger					6-8							
	Online						24-26						
Artificial Lift and Production Optimization for Unconventional Assets (PRO 507)	Stavanger					4-8							
	Online		9-13										
Artificial Lift and Production Optimization (PRO 508)	Abu Dhabi									21-25			
	Stavanger											16-20	
	Online										5-9		14-18
Gas Lift and Optimization in Unconventional - Primer Through Intermediate Application (PRO 509)	London	27-29											
	Dubai								5-7				
	Online										14-16	4-6	
Multiphase Flow Metering: Concepts and Applications (PRO 510)	Oslo										30		
	Aberdeen			2									
	Online						18					2	
Gas-Well Deliquification with Artificial Lift and..... (PRO 511)	Aberdeen							20-24					
	Online									7-11			
Full Field Optimization for Gas-Lift Assets (PRO 512)	Abu Dhabi								10-14				
	KL												7-11
	Online	5-9								7-11			
Gas Hydrates, Theory And Practice (PRO 513)	Abu Dhabi											16-20	
	Stavanger					18-22							
	Online						1-5						14-18
Asphaltene is an old problem, do we have a new solution? (PRO 515)	Stavanger									2-4			
	Online											4-6	
Well Integrity (PRO 516)	Abu Dhabi										5-8		
Realtime Well Engineering: Optimization, Operation and Monitoring (PRO 517)	Stavanger									1-4			
	Online											3-6	
Well Test Analysis (PRO 518)	Oslo											16-20	
	Dubai												7-11
	Online											2-6	14-18
Performance Evaluation of Horizontal Wells (PRO 519)	Dubai				15-17								
	Muscat									2-4			
	Online					13-15					21-23		
Well Test Interpretation Analysis (PRO 514)	Abu Dhabi											16-20	
	Stavanger					18-22							
	Online						1-5						14-18

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Course – Data Science	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Advanced Petroleum Data Analytics (DAT 600)	Stavanger				9-10								
	Abu Dhabi						4-5						
	Online					7-8		2-3					
Improved Reservoir Modelling Using Artificial Neural Network (DAT 601)	Stavanger				15-17								
	Abu Dhabi											4-6	
	Online					13-15							2-4
A Practical Introduction to Non-Linear Geostatistics..... (DAT 602)	Paris				15-17								
	Online					13-15							
Python Programming for Geoscientists and Engineers (DAT 603)	Amsterdam											24-26	
	Online										7-9		
Practical Mathematics for Petroleum Geologists (DAT 604)	Abu Dhabi										15-16		
	Stavanger					28-29							
	Online						25-26						3-4
Artificial Lift and Real-Time Optimization in Digital Oilfield (DAT 605)	Stavanger						3						
	Online							10					
Petroleum Data Analytics (DAT 606)	Stavanger						1-5						
Machine Learning Guide for Oil and Gas Using Python (DAT 607)	Stavanger								24-28				
	Online										19-23		
Python Programming for Oil... (DAT 608)	Online								10-14				6-10

Course – Petroleum Economy	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Resource and Reserves Assessment and Project Economics (ECO 700)	Dubai											4-6	
	Stavanger				22-24								
	Online					20-22					21-23		
Upstream Petroleum Economics: Fiscal System Modelling and Risk Analysis (ECO 701)	Abu Dhabi											2-6	
	Stavanger					4-8							
	Online						1-5						14-18
Exploration Valuation and Decision Analysis (ECO 702)	London					6-8							
	Online						3-5						
Economic Evaluation of Oil and Gas Development Projects (ECO 703)	KL						16-17						
	London												3-4
	Online							9-10				19-20	
Advanced Exploration Valuation and Decision Analysis (ECO 704)	London					18-22							
	Online						1-5						

Course – Renewable Energy	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Carbon Capture, Utilization and Storage (CCS 800)	Stavanger			16-19									
	Dubai											2-5	
	Online				20-23			6-9					
Reservoir Engineering Aspects of CO2 EOR and Storage (CCS 801)	Accra				8-10								
	Stavanger									23-25			
	Online					6-8					19-21		
Hydrogen Carbon Capture, and Storage (CCS 802)	Online					6-7							
	Stavanger									24-25			
Offshore Wind and Hydrogen (REN 803)	Stavanger										7-9		
	Online						3-5						
Green Ammonia (REN 804)	Oslo											17-20	
	Online									14-17			
Hydrogen Investment Analysis (REN 805)	Oslo								20-21				
	Online							23-24					
Project Development Best Practices for H2 Generic (REN 806)	Stavanger									3-4			
	Online												3-4

PetroTeach Course Program 2024

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Course Title (January 2026)	Location	Date	Price (EUR)
Fundamentals of Carbonate Reservoirs (GEO 100)	Online	12-16	2490
Modifying Pore Pressure Theory for Practical Use (GEO 103)	Stavanger	19-23	4990
Advance Reservoir Geochemistry (GEO 107)	KL	19-23	4990
Advanced Seismic Interpretation (GEO 126)	Stavanger	12-16	4490
Advanced Velocity Modelling (GEO 127)	Stavanger	26-30	4990
Geophysics for CO2 Monitoring (GEO 130)	Online	26-28	2490
Geophysical Data Acquisition & Processing (GEO 131)	Online	5-9	2490
Fundamental Principles of Permanent Plug and Abandonment (P&A) (DRL 309)	Stavanger	22-23	1120
Workover and Completions, Well Intervention (DRL 318)	Dubai	27-28	3740
Stuck Pipe, Fishing and Side-Tracking (DRL 332)	Amsterdam	14-16	3740
Fluid Flow in Porous Media and Its Application in Res. Eng (ES 402)	Online	12-16	2490
Petroleum Engineering For Non-Petroleum Engineers (RES 406)	London	12-16	3740
Advanced PVT and EOS Modelling (RES 411)	Stavanger	20-21	4990
Fundamentals of Enhanced Oil Recovery (RES 412)	Online	26-30	2490
Heavy Oil Reservoir Engineering (RES 417)	Khartoum	22-23	2490
Practical Application of Geo-statistics in Reservoir Simulation (RES 418)	Abu Dhabi	14-16	3740
Integrated Geomodeling, Flow Stimulation, Economics and.... (RES 423)	London	12-16	4990
The Use of Analogous to Estimate Recovery Efficiencies and (RES 426)	Online	15-16	1070
Capillarity in Porous Media At Different Scale (RES 428)	Online	13-16	2240
Waterflooding Management (RES 430)	KL	12-16	4990
Petroleum Engineering for Non-Engineers (RES 432)	Online	12-16	2490
Gas Lift and Optimization in Unconventional - Application Concepts (PRO 509)	London	27-29	3740
Full Field Optimization for Gas-Lift Assets (PRO 512)	Online	5-9	2490
Course Title (February 2026)	**Location**	**Date**	**Price (EUR)**
Fundamentals of Carbonate Reservoirs (GEO 100)	Dubai	9-13	4990
Exploration and Development for Carbonate Reservoirs (GEO 102)	Doha	16-20	4990
Modifying Pore Pressure Theory for Practical Use (GEO 103)	Online	9-13	2490
Analysis of Facies Using Petrophysical Data (GEO 104)	Oslo	9-13	4990
Advance Reservoir Geochemistry (GEO 107)	Online	16-20	2490
Crustal Structure of Sedimentary Basins (GEO 110)	Moscow	24-26	3740
Fractured Reservoirs Characterization (GEO 112)	Abu Dhabi	9-13	4990
Geological and Reservoir Eng. Aspects of Fractured Reservoirs (GEO 113)	Online	2-6	2490
Carbonate Depositional Systems and Reservoir Sedimentology (GEO 117)	London	2-6	4990
Geomodelling Workflow (GEO 119)	London	2-6	4990
3D Printing for Geological Data (GEO 123)	Istanbul	5-6	2490
Machine Learning & Deep Learning for Geophysical Applications (GEO 124)	Istanbul	9-13	4990
Advanced Seismic Acquisition & Processing (GEO 125)	Paris	16-20	4990
Advanced Seismic Interpretation (GEO 126)	Online	23-27	2490

PetroTeach Course Program 2024

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Course Title (February 2026)	Location	Date	Price (EUR)
Advanced Seismic Interpretation (GEO 126)	Online	23-27	2490
Advanced Velocity Modelling (GEO 127)	Online	17-19	1740
AVO & Inversion (GEO 128)	Online	10-16	2490
Electric & Electro-Magnetic for Geophysical Applications (GEO 129)	Online	5-7	2490
Geophysics for CO2 Monitoring (GEO 130)	Dubai	11-13	4990
Geophysical Data Acquisition & Processing (GEO 131)	Dubai	9-13	4990
Borehole Images Applications (PPH 202)	Online	23-27	2490
Geomechanical Aspects of Well Construction (PPH 203)	Stavanger	2-6	4990
Geomechanics for Field Development (PPH 204)	Stavanger	9-13	4990
Sand Control and Sand Management PPH 205	Online	16-20	2490
Introduction to Petrophysics Using Geo-Fit (PPH 206)	Stavanger	23-27	4990
Advanced Petroph sics PPH 207	Online	2-6	2490
Introduction to Drilling Engineering (DRL 300)	Bangkok	2-6	4990
Advanced Air and Foam Drilling DRL 302	Online	16-18	1740
Applied Drilling and Well Engineering (DRL 303)	London	2-6	8740
Fundamental Principles of Permanent Plug and Abandonment P&A (DRL 309)	Online	19-20	1070
Casing and Cementing (DRL 312)	Online	17-20	1990
Coiled Tubin and Its Applications (DRL 313)	Amsterdam	9-13	4990
Directional, Horizontal and Sidetrack Drilling (DRL 322)	Online	2-6	2490
Drill strin Design (DRL 324)	Dubai	16-20	4990
Introduction to Drilling (DRL 328)	Online	2-3	1070
W-CAT: Well Control Assurance Trainin (DRL 338)	Stavanger	2-6	4990
Applied Reseivoir Engineering (RES 404)	Oslo	2-6	4990
Introduction to Petroleum En ineering (RES 405)	Oslo	9-13	4990
Fundamentals of Enhanced Oil Recovery (RES 412)	Mumbai	16-20	4990
PVT Phase Behavior And Properties of Reseivoir Fluids (RES 427)	Online	9-13	2490
Assessment and Mitigation of Formation Damage (PRO 504)	Stavanger	9-13	4990
Artificial Lift and Production Optimization for Unconventional Assets (PRO 507)	Online	9-13	2490

Course Title (March 2026)	Location	Date	Price (EUR)
Sedimentol ical Input to Static Carbonate Reservoir Model (GEO 101)	Dubai	16-20	4990
Exploration and Development for Carbonate Reservoir Model (GEO 102)	Doha	2-6	4990
Anal sis of Facies Using Petroph (GEO 104)	Online	2-6	2490
Structural Geology (GEO 105)	Moscow	16-20	4990
Advanced Petroleum Geochemist (GEO 106)	Dubai	10-14	4990
Seismic Data Acquisition and Quality Control (GEO 109)	Online	4-6	1740
Crustal Structure of Sedimentary Basins (GEO 110)	Online	25-27	1740
Fractured Reservoirs Characterization (GEO 112)	Online	16-20	2490
Geol ical and Reservoir Engineerin Aspects of Fractured Reservoirs (GEO 113)	Algeria	2-6	4990
Carbonate Depositional Systems and Reservoir Sedimentology (GEO 117)	Online	16-20	2490
Exploration and Development for Sandstone Reservoirs (GEO 118)	Online	16-20	2490
3D Printing for Geological Data (GEO 123)	Online	4-5	1070
Machine Learning & Deep Learning for Geophysical Applications (GEO 124)	Online	2-6	2490
Advanced Seismic Acquisition & Processing (GEO 125)	Online	9-13	2490
Cased Hole Logging for EOR and Productivity (PPH 200)	Dubai	2-6	4990
Geomechanical Aspects of Well Construction (PPH 203)	Online	16-20	2490
Introduction to Drilling Engineering (DRL 300)	Online	2-6	2490
Advanced Casing Design (DRL 301)	Dubai	2-6	4990
E-Line Operations Cased Hole for Completion Operation (DRL 316)	Istanbul	9-13	4990
Stuck Pipe Causes, Prevention and Remediation (DRL 317)	Online	2-6	2490
Stuck Pipe, Fishing and Side-Tracking (DRL 332)	Online	18-20	1740
Fundamentals of Natural Gas Engineering (RES 401)	KL	9-13	4990
Applied Reservoir Engineering (RES 404)	Online	2-6	2490
Introduction to Petroeum Engineering (RES 405)	Online	16-20	2490
Petroleum Engineerin For Non-Petroleum En ineers (RES 406)	Online	9-13	2490
Applied Rock Typing (RES 413)	Dubai	23-24	2490
SAGD and Solvent-SAGO Design and Anal sis in Thermal... (RES 424)	Online	18-19	1070
PVT Phase Behavior and Properties of Reservoir Fluids (RES 427)	Online	2-6	2490
Well Integrity Management (PRO 502)	Oslo	2-6	4990
Assessment and Mitigation of Formation Damage (PRO 504)	Online	2-6	2490
Multiphase Flow Metering: Concepts and Applications (PRO 510)	Aberdeen	2	790
Carbon Capture, Utilization and Storage (CCS 800)	Stavanger	16-19	4990

Course Title (April 2026)	Location	Date	Price (EUR)
Analysis of Facies Using Petrophysical Data (GEO 104)	Moscow	6-10	4990
Structural Geology (GEO 105)	Online	20-24	2490
Geomodelling Workflow (GEO 119)	Online	6-10	2490
3D Printing for Geological Data (GEO 123)	Oslo	2-3	2490
Advanced Seismic Interpretation (GEO 126)	Amsterdam	20-24	4990
Advanced Velocity Modelling (GEO 127)	Amsterdam	15-18	3740
AVO & Inversion (GEO 128)	Abudhabi	8-12	4990
Electric & Electro-Magnetic for Geophysical Applications (GEO 129)	Muscat	2-4	4990
Geophysics for CO2 Monitoring (GEO 130)	Stavanger	8-10	4990
Geophysical Data Acquisition & Processing (GEO 131)	Stavanger	6-10	4990
Multi-Physics (GEO 135)	Trondheim	6-10	4990
Quantitative Reservoir Characterization (GEO 136)	Stavanger	13-17	4990
Casedhole logging with approach to logging suiveillance for EOR (PPH 200)	Online	20-24	2490
Borehole Images Applications (PPH 202)	KL	6-10	4990
Sand Control and Sand Management (PPH 205)	Paris	20-24	4990
Advanced Petrophysics (PPH 207)	Abu Dhabi	6-10	4990
Advanced Casin Design (DRL 301)	Online	6-10	2490
Advanced Air and Foam Drilling (DRL 302)	Stavanger	22-24	3740
Drilling Engineering for Non-Drilling Engineers (DRL 314)	London	1-3	3740
Workover and Completions, Well Inteivention (DRL 318)	Online	22-23	1740
Introduction to Drilling (DRL 328)	Stavanger	23-24	2490
W-CAT: Well Control Assurance and Blowout Avoidance (DRL 338)	Online	6-10	2490
Fundamentals of Reservoir Engineering (RES 400)	Accra	13-17	4990
Fundamentals of Natural Gas Engineering (RES 401)	Online	6-10	2490
Natural Gas Engineering (RES 403)	Accra	16-17	3740
Advanced Topics in Reservoir Modelling (RES 408)	Dubai	13-17	4990
PVT Properties of Reservoir Fluids (RES 410)	Stavanger	20-24	4990
Advanced PVT and EOS Modelling (RES 411)	Doha	6-7	3740
Applied Rock Typing (RES 413)	Online	1-2	1070
Geological Model Validation (RES 414)	Dubai	23-24	2490
Capillarity in Porous Media Al different Scale (RES 428)	Oslo	21-24	4370
Gas Lift Well Optimization (PRO 501)	Dubai	6-10	4990
Integrated Production Data Analysis and Modelling (PRO 502)	Online	6-10	2490
Performance Evaluation of Horizontal Wells (PRO 519)	Dubai	15-17	1120
Advanced Petroleum Data Analytics (DAT 600)	Stavanger	9-10	2490
Improved Reservoir Modelling Using Artificial Neural Network (DAT 601)	Stavanger	15-17	3740
Introduction to Non-Linear Geostatistics for Petroleum Resevoirs (DAT 602)	Paris	15-17	3740
Resource and Reserves Assessment and Project Economics (ECO 700)	Stavanger	22-24	3740
Carbon Capture Utilization and Storage (CCS 800)	Online	20-23	2490
Reservoir Engineering Aspects of CO2 EOR and Storage (CCS 801)	Accra	8-10	3740

Course Title (May 2026)	Location	Date	Price (EUR)
Sedimentological Input to Static Carbonate Reservoir Model (GEO 101)	Online	4-8	2490
Advanced Seismic Acquisition & Processing (GEO 125)	Trondheim	4-8	4990
Advanced Slickline Training (DRL 311)	Oslo	18-22	4990
Managing lost Time (DRL 327)	Aberdeen	19-22	4990
HP-HT Drilling Operations (DRL 329)	London	4-8	4990
Advanced Drillin Fluids, Pressure and H draulics Management (DRL 339)	Online	19-22	1990
Advanced Drilling Fluids, Pressure and Hydraulics Management (DRL 340)	Online	12-15	1990
Fundamentals of Reservoir Engineering (RES 400)	Online	11-15	2490
Natural Gas Engineering (RES 403)	Online	4-5	1990
Advanced Topics in Reservoir Modelling (RES 408)	Online	11-15	2490
PVT Properties of Resrvoir Fluids (RES 410)	Online	18-22	2490
Advanced PVT and EOS Modelling (RES 411¨)	Online	11-12	1740
Geological Model Validation (RES 414)	Online	7-8	1240
Practical Reservoir Engineerin and Flow Simulation (EES 421)	Stavanger	4-8	4990
Integrated Geomodelling, Flow Simulation, Economics (RES 423)	Online	11-15	2490
SAGD and Solvent-SAGD Design and Analysis in Thermal (RES 424)	Online	4-5	1070
The Use of Analogous to Estimate Recovery Efficiencies (RES 426)	Online	14-15	1070
PVT Phase Behavior and Properties of Reservoir Fluids (RES 42)	Stavanger	18-22	4990
Petroleum Engineering for Non-Engineers (RES 432)	Online	4-8	2490
Hydraulic Fracturing (RES 433)	Online	4-8	2490
An Integrated Approach to PVT and Phase Behaviour of Fluids (RES 435)	Istanbul	6-8	3740
Gas Lift Well Optimization (PRO 501)	Online	4-8	2490
Assessment and Mitigation of Formation Damage (PRO 504)	Accra	18-22	4990
Fundamentals of Integrated Production Modelling (PRO 505)	Stavanger	4-8	4990
Production Optimization Using Nodal Analysis (PRO 506)	Stavanger	6-8	3740
Artificial Lift and Production Optimization for Unconventional Assets (PRO 507)	Stavanger	4-8	4990
Gas Hydrates, Theory And Practice (PRO 513)	Stavanger	18-22	4990
Performance Evaluation of Horizontal Wells (PRO 519)	Online	13-15	1740
Well Test Interpretation Analysis (PRO 514)	Stavanger	18-22	4990
Advanced Petroleum Data Analytics (DAT 600)	Online	7-8	1070
Improved Reservoir Modelling Using Artificial Neural Network (DAT 601)	Online	13-15	1740
Introduction to Non-Linear Geostatistics for Petroleum Reservoirs (DAT 602)	Online	13-15	1740
Practical Mathematics for Petroleum Geologists (DAT 604)	Stavanger	28-29	2490
Resource and Reserves Assessment and Project Economics (ECO 700)	Online	20-22	1740
Upstream Petroleum Economics: Fiscal Modelling & Risk Analysis (ECO 701)	Stavanger	4-8	4990
Exploration Valuation and Decision Analysis (ECO 702)	London	6-8	3740
Advanced Exploration Valuation and Decision Analysis (ECO 704)	Online	18-22	2490
Reservoir Engineering Aspects of CO2 EOR and Storage (CCS 801)	Online	6-8	1740
Hydrogen Carbon Capture, and Storage (CCS 802)	Online	6-7	1120
Valuation and Financing of Renewable Energy Projects (REN 807)	Online	11-12	1070

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Course Title (June 2026)	Location	Date	Price (EUR)
Advanced Petroleum Geochemistry (GEO 106)	Online	8-12	2490
Geological & Reservoir Engineering Aspects of Fractured Reservoirs (GEO 113)	Online	1-5	2490
Advanced Seismic Interpretation (GEO 126)	Online	22-26	2490
Advanced Velocity Modelling (GEO 127)	Online	17-19	1740
AVO & Inversion (GEO 128)	Online	15-19	2490
Electric & Electro-Magnetic for Geophysical Applications (GEO 129)	Online	8-10	2490
Geomechanics for Field Development (PPH 204)	Online	15-19	2490
Introduction to Petrophysics Using GeoFit (PPH 206)	Online	22-26	2490
Applied Drilling and Well Engineering (DRL 303)	Online	1-5 & 8-12	4490
Drilling Engineering for Non-Drillinmg Engineers (DRL 314)	Online	25-27	1740
Managing Lost Time (DRL 327)	Online	9-12	1990
HP-HT Drillin Operations (DRL 329)	Online	1-5	2490
Casing and Tubular Design (DRL 333)	Aberdeen	15-19	4990
Advanced Drillin Fluids, Pressure and Hydraulics Management (DRL 340)	Stavanger	9-12	4370
Advanced Core Analysis (RES 407)	Dubai	1-5	4990
Advanced EOR Gas In-ection (RES 409)	Dubai	15-19	4990
Determination of Reservoir Initial State for Reservoir Simulation (RES 415)	Dubai	11-12	2490
Heavy Oil Reservoir Engineerin (RES 417)	Accra	9-10	2490
Reservoir Characterization (RES 419)	Stavanger	8-12	4990
Best Practice for Upscaling in Reservir Simulation (RES 420)	Stavanger	3-5	3740
Practical Reservoir Engineering and Flow Simulation (RES 421)	Online	1-5	2490
Practical in Geomodelling, Flow Simulation, Economics & Uncertainty (RES 422)	Dubai	22-26	4990
SAGD and Solvent-SAGDesign and Analysis in Thermal Recovery (RES 424)	Amsterdam	11-12	2490
Steam-Solvent and Electromagnetic Heating Design in Thermal (RES 425)	Amsterdam	23-24	2490
The Use of Analogous to Estimate Recovery Efficiencies (RES 426)	London	9-10	2490
Best Practices of Enhanced Oil Recovery Projects (RES 429)	Istanbul	1-5	4990
Petroelum Engineering for non-Engineers (RES 432)	Istanbul	8-12	4990
Underground Gas Storage (RES 434)	Istanbul	24-26	3740
AnIntegrated Approach to PVT and Phase Behaviour Resevoir Fluids (RES 435)	Online	3-5	1740
FPSO Design and Operation (PRO 503)	Stavanger	8-12	4990
Assessment and Mitigation of Formation Damage(PRO 504)	Online	15-19	2490
Fundamentals of Integrated Production Modelling (PRO 505)	Online	1-5	2490
Production Optimization Using Nodal Analysis (PRO 506)	Online	24-26	1740
Multiphase Flow Metering: Concepts and Applications (PRO 510)	Online	18	570
Gas Hydrates Theory And Practice (PRO 513)	Online	1-5	2490
Advanced Petroleum Data Analytics (DAT 600)	Abu Dhabi	4-5	2490
Practical Mathematics for Petroleum Geologists (DAT 604)	Online	25-26	1070
Artificial Lift and Real-Time Optimization in Digital Oilfield (DA 605)	Stavanger	3	1120
Petroleum Data Analytics (DAT 606)	Stavanger	1-5	4990
UpstreamPetroleumEconomics:Fiscal SystemModelling & Risk (ECO 701)	Online	1-5	2490
Exploration Valuation and Decision Analysis (ECO 702)	Online	3-5	1740
Economic Evaluation of Oil and Gas Development Projects (ECO 703)	KL	16-17	2490
Advanced Exploration Valuation and Decision Analysis (ECO 704)	Online	1-5	2490
Offshore Wind and Hydrogen (REN 803))	Online	3-5	1740
Well Test Analysis (PRO 514)	Online	1-5	2490

Course Title (July 2026)	Location	Date	Price (EUR)
Sedimentological Input to Static Carbonate Reservoir Model (GEO 101)	Online	13-17	2490
Exploration and Developmentfor Carbonate Reservoirs (GEO102)	Online	6-10	2490
Analysis of Facies Using Petrophysical Data (GEO 104)	Online	13-17	2490
Structural Geology (GEO 105)	Online	20-24	2490
Advanced Petroleum Geochemistry (GEO 106)	Online	6-10	2490
Advance Reservoir Geochemistry (GEO 107)	Online	20-24	2490
Seismic Data Acquisition and Quality Control (GEO 109)	Moscow	21-23	3740
International Reporting and Mineral Resource Estimation (GEO 111)	Online	6-10	1740
Fractured Reservoirs Characterization (GEO 112)	Online	7-8	2490
3D Printing for Gelogical Data (GEO 123)	Online	7-8	1070
Machine Learning & Deep Learning for Geophysical Applications (GEO 124)	Online	6-10	2490
Advanced Seismic Acquisition & Processing (GEO 125)	Online	6-10	2490
Advanced Open Hole Logging (PPH 201)	Online	6-10	2490
Advanced Petrophysics (PPH 207)	Cairo	20-24	4990
Stuck Pipe Prevention (DRL 308)	Dubai	9-10	2490
Fundamental Principles of Permanent Plug and Abandonment (P&A) (DRL 309)	Online	9-10	1070
Stuck Pipe Causes, Prevention and Remediation (DRL 317)	Stavanger	6-10	4990
Cementing Technologies (DRL 320)	Doha	6-10	4990
Deepwater Drilling (DRL 331)	Amsterdam	13-17	4990
Casing and Tubular Design (DRL 333)	Online	20-24	2490
Latent Cause Analysis (DRL 336)	Online	6-9	2490
Fluid Flow in Porous Media & Its Application in Reservoir Engineering (RES 402)	Amsterdam	20-24	4990
Advanced Core Analysis (RES 407)	Online	6-10	2490
Advanced EOR Gas Injection (RES 409)	Online	20-24	2490
Fundamentals of Enhanced Oil Recove (RES 412)	Bangkok	13-17	4990
Determination of Reseivoir Initial State for Reservoir Simulation (RES 415)	Stavanger	23-24	2490
Reservoir Engineering of Fractured Reservoirs (RES 416)	Khartoum	6-8	4990
Heavy Oil Reseivoir Engineering (RES 417)	Online	23-24	1320
Practical Application of Geostatistics in Reseivoir Simulation (RES 418)	Online	1-3	1740
Reseivoir Characterization (RES 419)	Online	20-24	2490
Practical in Geomodellin, Flow Simulation, Economics and ... (RES 422)	Online	6-10	2490
Steam-Solvent & Analysis in Thermal Recovery (RES 425)	Online	1-2	1070
Best Practices of Enhanced Oil Recovery Projects (RES 429)	Online	6-10	2490
Integrated Core & Well Logging Data for Reseivoir Characterization (RES 431)	Amestrdam	20-24	4990
Petroleum Engineering for Non-Engineers (RES 432)	Stavanger	13-17	4990
Underground Gas Storage (RES 434)	Online	15-17	1740
FPSO Design and Operation (PRO 503)	Online	6-10	2490
Gas-Well Deliquification with Artificial Lift and Production.... (PRO 511)	Aberdeen	20-24	4990
Advanced Petroleum Data Analytics (DAT 600)	Online	2-3	1070
Artificial Lift and Real-Time Optimization in Digital Oilfield (DAT 605)	Online	10	570
Economic Evaluation of Oil and Gas Development Projects (ECO 703)	Online	9-10	1070
Carbon Capture, Utilization and Storage (CCS 800)	Online	6-9	2490
Hydrogen Investment Analysis (REN 805)	Online	23-24	1070

Course Title (August 2026)	Location	Date	Price (EUR)
Fundamentals of Carbonate Reservoirs (GEO 100)	Online	3-7	2490
Sedimentological Input to Static Carbonate Reservoir Model (GEO 101)	Stavanger	10-14	4990
Modifying Pore Pressure Theory for Practical Use (GEO 103)	Online	17-21	2490
Structural Geology (GEO 105)	Oslo	10-14	4990
Advanced Petroleum Geochemistry (GEO 106)	KL	3-7	4990
Advance Reservoir Geochemistry (GEO 107)	Dubai	17-21	4990
Practical Geophysics Course for Geologists (GEO 108)	Oslo	26-28	3740
Seismic Data Acquisition and Quality Control (GEO 109)	London	5-7	3740
Crustal Structure of Sedimentary Basins (GEO 110)	Online	12-14	1740
International Reporting and Mineral Resource Estimation (GEO 111)	Online	26-28	1740
Geological & Reservoir Engineering Aspects of Fractured Reservoirs (GEO 113)	Dubai	3-7	4990
Seismic Reservoir Characterization (GEO 114)	Copenhgen	3-7	2490
Advanced Analysis of Carbonate Systems (GEO 116)	Abu Dhabi	3-7	4990
Carbonate Depositional Systems and Reservoir Sedimentology (GEO 117)	Abu Dhabi	3-7	4990
Exploration and Development for Sandstone Reservoirs (GEO 118)	Dubai	17-21	4990
Introduction to Basin Modelling (GEO 121)	Stavanger	17-21	4990
Reservoir Modeling Using Geo-statistics (GEO 122)	Stavanger	3-7	4990
Rock Physics for Quantitative Seismic Reservoir Characterization (GEO 123)	Stavanger	17-21	4990
Geophysics for Data Scientists (GEO 132)	Online	3-7	2490
Geophysics for Geothermal Energy (GEO 133)	Online	10-12	1740
Gravity & Magnetics (GEO 134)	Online	10-13	1740
Advanced Open Hole logging (PPH 201)	Cairo	17-21	4990
Borehole Images Applications (PPH 202)	Dubai	3-7	4990
Advanced Petrophysics (PPH 207)	Online	3-7	2490
Stuck Pipe Prevention (DRL 308)	Online	13-14	1070
Fundamental Principles of Permanent Plug and Abandonment (P&A) (DRL 309)	Oslo	27-28	2490
Drilling Optimization (DRL 315)	Aberdeen	3-7	4990
Completion and Production Engineering (DRL 321)	Muscat	10-14	4990
Drill-string Design (ORL 324)	Online	17-21	2490
Casing and Tubular Design (DRL 333)	Online	17-21	2490
Advanced Drilling Fluids, Pressure and Hydraulics Management (ORL 339)	Stavanger	3-6	4990
Fundamentals of Natural Gas Engineering (RES 401)	Online	17-21	2490
Fluid Flow in Porous Media & Its Application in Reservoir Engineering (RES 402)	Online	17-21	2490
Applied Resevoir Engineering (RES 404)	Online	3-7	2490
Introduction to Petroleum Engineering (RES 405)	Online	10-11	2490
PVT Properties of Reservoir Fluids (RES 410)	Online	3-7	2490
Advanced PVT and EOS Modelling (RES 411)	Online	3-7	2490
Fundamentals of Enhanced Oil Recovery (RES 412)	Online	3-7	2490
Applied Rock Typing (RES 413)	Online	3-4	1070
Determination ofReservoir Initial State for Reservoir Simulation RES 415	Online	13-14	1070
ReseNOir Engineering of Fractured Reseivoirs (RES 416)	Online	10-12	2490
Practical A lication of Geostatistics in Resevoir Simulation (RES 418)	Amsterdam	5-7	3740
Best Practice for Upscaling in ReseNOir Simulation (RES 420)	Online	26-28	1740
Integrated Geomodelling, Flow Simulation, Economics and Uncertain RES 423	Online	3-7	2490

Course Title (August 2026)	Location	Date	Price (EUR)
Waterflooding Management (RES 430)	Cairo	3-7	4990
Integrated Core and Well Logging Data (RES 431)	Online	17-21	2490
Hydraulic Fracturing (RES 433)	Online	17-21	2490
An Integrated Approach to PVT & Phase Behaviour of Reservoir Fluids (RES 435)	Dubai	5-7	3740
Integrated Production Data Analysis and Modelling (PRO 502)	Online	24-28	2490
Gas Lift and Optimization in Unconventional Reseivoirs PRO 509	Dubai	5-7	3740
Full Field Optimization for Gas-Lift Assets (PRO 512)	Abu Dhabi	10-14	4990
Machine Learnin Guide for Oil and Gas Using Python (DAT 607)	Stavanger	24-28	4990
Python Programming for Oil and Gas Industry (DAT 608)	Online	10-14	2490
Hydrogen Investment Analysis (RENEW 805)	Oslo	20-21	2490
Course Title (September 2026)	**Location**	**Date**	**Price (EUR)**
Fundamentals of Carbonate Reservoirs (GEO 100)	Doha	7-11	4990
Geology for Engineers and Managers (GEO 102)	Stavanger	7-11	4990
Modifying Pore Pressure Theory for Practical Use (GEO 103)	Oslo	21-25	4990
Practical Geophysics Course for Geologists (GEO 108)	Oslo	23-25	3740
Crustal Structure of Sedimentary Basins (GEO 110)	London	9-11	3740
International Reporting and Mineral Resource Estimation (GEO 111)	London	15-17	3740
Seismic Reservoir Characterization (GEO 114)	Online	7-11	4990
Advanced Analysis of Carbonate Systems (GEO 116)	Stavanger	21-25	4990
Carbonate Depositional Systems and Reservoir Sedimentology (GEO 117)	Online	7-11	2490
Geomodelling Workflow (GEO 119)	Online	7-11	2490
Introduction to Basin Modelling (GEO 121)	Online	7-11	2490
Reservoir Modeling Using Geostatistics (GEO 122)	Online	7-11	2490
Rock Physics for Quantitative Seismic Reservoir Characterization (GEO 123)	Online	14-18	2490
Geophysics for Data Scientists (GEO 132)	Dubai	7-11	4990
Geophysics for Geothermal Energy (GEO 133)	Amsterdam	14-16	4990
Gravity & Magnetics (GEO 134)	Oslo	14-17	3740
Multi-Physics (GEO 135)	Muscat	21-25	4990
Quantitative Reservoir Characterization (GEO 136)	Dubai	14-18	4990
Advanced Open Hole Logging (PPH 201)	Online	7-11	2490
Borehole Images Applications (PPH 202)	Online	7-11	2490
Geomechanical Aspects of Well Construction (PPH 203)	Oslo	14-18	4990
Geomechanics for Field Development (PPH 204)	Online	7-11	2490
Introduction to Petrophysics Using GeoFit (PPH 206)	London	7-11	4990
Deepwater Drilling Opertaions (DRL 304)	Online	7-11	2490
HPHT Well Design and Operations (DRL 306)	Online	7-11	2490
Managed Pressure Drilling (DRL 307)	Dubai	21-23	3740
Acid Stimulation Techniques (DRL 310)	Online	7-11	2490
Coiled Tubing and Its Applications (DRL 313)	Online	7-11	2490
Directional, Horizontal and Sidetrack Drilling (DRL 322)	Oslo	7-11	4990
Fundamentals of Drilling Engineering (DRL 323)	Online	7-11	2490
Stuckpipe Prevention (DRL 325)	Online	14-18	2490
Offshore Managed Pressure Drilling (DRL 330)	Online	15-18	1990
Well Integrity (DRL 334)	Stavanger	2-4	3740

Course Title (September 2026)	Location	Date	Price (EUR)
Latent Cause Analysis (DRL 336)	Stavan er	8-11	4990
Applied Drilling Engineering (DRL 341)	Stavanger	7-10	3740
Drilling Automation (DRL 342)	Stavanger	9-10	3740
Natural Gas Engineering (RES 403)	Accra	2-3	3740
Petroleum Engineering for Non-Petroleum Engineers (RES 406)	Online	14-18	2490
Advanced Core Analysis (RES 407)	KL	7-11	4990
Advanced Topics in Reseivoir Medelling (RES 408)	KL	7-11	4990
Advanced EOR Gas Injection (RES 409)	Online	7-11	2490
Reservoir Characterization (RES 419)	Dubai	7-11	4990
Best Practice for Upscaling in Reservoir Simulation (RES 420)	Online	2-4	1740
Practical Reservoir Engineering and Flow Simulation (RES 421)	Online	7-11	2490
Practical in Geomodelling, Flow Simulation, Economics & Uncertainty (RES 422)	Stavanger	21-25	4990
Hydraulic Fracturing (RES 433)	Paris	21-25	4990
Artificial Lift and Production Optimization (PRO 508)	Abu Dhabi	21-25	4990
Gas-Well Deliquification with Artificial Lift and Production Optimization (PRO 511)	Online	7-11	2490
Full Field Optimization for Gas-lift Assets (PRO 512)	Online	7-11	2490
Asphaltene is an old Problem, do we have a new solution? (PRO 515)	Stavanger	2-4	3740
Realtime Well Engineering (PRO 517)	Stavanger	1-4	3740
Performance Evaluation of Horizontal wells (PRO 519)	Muscat	2-4	3740
Reseivoir Engineering Aspects of CO2 EOR and Storage (CCS 801)	Stavanger	23-25	3740
Hydrogen Carbon Capture, and Storage (CCS 802)	Stavan er	24-25	3740
Green Ammonia (REN 804)	Online	14-17	1990
Project Development Best Practices for H2 Generic (REN 806)	Stavanger	3-4	2490
Valuation and Financing of Renewable Energy Projects (REN 807)	Stavanger	14-15	2490

Course Title (October 2026)	Location	Date	Price (EUR)
Seismic Data Acquisnion and Quality Control (GEO 109)	Online	5-7	1740
Seismic Reseivoir Characterization (GEO 114)	Online	19-23	2490
Geosteering: Fundamentals, Planning, and Implementation (GEO 115)	Online	7-9	1740
Advanced Analysis of Carbonate Systems (GEO 116)	Online	5-9	2490
Exploration and Development for Sandstone Reseivoirs (GEO 118)	Online	19-23	2490
Introduction to Basin Modelling (GEO 121)	Online	19-23	2490
Reseivoir Modeling Using Geo-statistics (GEO 122)	Online	5-9	2490
Geophysics for Data Scientists (GEO 132)	Stavanger	5-9	4990
Geophysics for Geothermal Energy (GEO 133)	Dubai	12-14	3740
Gravity & Magnetics (GEO 134)	Doha	12-15	3740
Open and Cased Hole Logging and Interpretation (PPH 200)	Online	19-23	2490
Geomechanical Aspects of Well Construction (PPH 203)	Online	5-9	2490
Geomechanics for Field Development (PPH 204)	Aberdeen	19-23	4990
Sand Control and Sand Management (PPH 205)	Online	5-9	2490
Introduction to Petrophysics Using Geo-Fit (PPH 206)	Online	5-9	2490
Deepwater Drilling Operations (DRL 304)	Aberdeen	19-23	4990
Drillstring Design (DRL 305)	Online	5-8	1990
Managed Pressure Drilling (DRL 307)	Online	7-9	1740
Acid Stimulation Techniques (DRL 310)	Stavanger	5-9	4990
Advanced Slickline Training (DRL 311)	Online	5-9	2490
E-Line Operations Cased Hole for Completion Operation (DRL 316)	Online	19-23	2490
Advanced Casing Design and Tubing (DRL 319)	Online	5-9	2490
Cementing Technologies (DRL 320)	Online	5-9	2490
Well Integrity Management (DRL 326)	Copenhgen	19-23	4990
Offshore Managed Pressure Drilling (DRL 330)	Abu Dhabi	6-9	4990
Deepwater Drilling (DRL 331)	Online	19-23	2490
Advanced Drilling Fluids, Pressure and Hydraulics Management (DRL 337)	Abu Dhabi	5-9	4990
Fluid Flow in Porous Media & Its Application in Reseivoir Engineering (RES 402)	Accra	26-30	4990
Natural Gas Engineering (RES 403)	Online	7-8	1990
Applied Reseivoir Engineering (RES 404)	Paris	19-23	4990
Introduction to Petroleum Engineering (RES 405)	Paris	5-9	4990
Petroleum Engineering For Non-Petroleum Engineers (RES 406)	KL	26-30	4990
Advanced Core Analysis (RES 407)	Online	5-9	2490
Advanced Topics in Reservoir Modelling (RES 408)	Online	19-23	2490
PVT Properties of Reseivoir Fluids (RES 410)	Doha	26-30	4990
Applied Rock Typing (RES 413)	KL	1-2	2490
Reseivoir Characterization (RES 419)	Online	19-23	2490
Steam-Solvent and Electromagnetic Heating Analysis (RES 425)	Moscow	15-16	2490
The Use of Analogous to Estimate Recovery Efficiencies (RES 426)	Stavanger	8-9	2490
Capillarity in Porous Media At Different Scale (RES 428)	Abu Dhabi	13-16	4370
Best Practices of Enhanced Oil Recovery Projects (RES 429)	Doha	19-23	4990
Watelflooding Management (RES 430)	Online	5-9	2490
Underground Gas Storage (RES 434)	Dubai	7-9	3740

Course Title (October 2026)	Location	Date	Price (EUR)
Watelflood Management (RES 436)	London	5-7	3740
Watelflood Management (RES 436)	Online	27-29	1990
Reservoir Management: Uncertainties and Risk (RES 437)	London	5-8	1990
Reservoir Management: Uncertainties and Risk (RES 427)	Online	14-17	1990
Integrated Production Data Analysis and Modelling (PRO 502)	Paris	19-23	4990
Fundamentals of Integrated Production Modelling (PRO 505)	Doha	19-23	4990
Artificial Lift and Production Optimization (PRO 508)	Online	5-9	2490
Gas Lift and Optimization (Pro 509)	Online	14-16	1740
Multiphase Flow Metering: Concepts and Applications (PRO 510)	Oslo	30	1120
Well Integrity in the Operation Phase (PRO 516)	Abu Dhabi	5-8	4990
Performance Evaluation of Horizontal Wells (PRO 519)	Online	21-23	1740
Python Programming for Geoscientists and Engineers (DAT 603)	Online	7-9	1990
Practical Mathematics for Petroleum Geologists (DAT 604)	Abu Dhabi	15-16	2490
Machine Learning Guide for Oil and Gas Using Python (DAT 607)	Online	19-23	2490
Resource and Reserves Assessment and Project Economics (ECO 700)	Online	21-23	1740
Reservoir Engineering Aspects of CO2 EOR and Storage (CCS 801)	Online	19-21	1740
Offshore Wind and Hydrogen (REN 803)	Stavanger	7-9	3740

Course Title (November 2026)	Location	Date	Price (EUR)
Fractured Reservoirs Characterization (GEO112)	Dubai	2-6	4990
SeismicReservoir Characterization (GEO 114)	Oslo	2-6	4990
Geosteering: Fundamentals, Planning, and Implementation (GEO 115)	Stavanger	4-6	3740
Advanced Analysis of Carbonate Systems (GEO 116)	Online	2-6	2490
Exploration and Development for Sandstone Reservoirs (GEO 118)	Doha	2-6	4990
Introduction to Basin Modelling (GEO 120)	Abu Dhabi	2-6	4990
Rock Physics for Quantitative Seismic Reservoir Characterization (GEO 122)	Online	2-6	2490
Geophysics for Data Scientists (GEO 132)	Online	2-6	2490
Geophysics for Geothermal Energy (GEO 133)	Online	9-11	1740
Gravity & Magnetics (GEO 134)	Online	9-11	1740
Multi-Physics (GEO 135)	Online	9-13	2490
Quantitative Reservoir Characterization (GEO 136)	Online	9-13	2490
Cased Hole Logging with Approach to Logging Surveillance (PPH 200)	Dubai	2-6	4990
Sand Control and Sand Management (PPH 205)	Stavanger	2-6	4990
Drillstring Design (DRL 305)	Aberdeen	3-6	4990
Casing and Cementing (DRL 312)	Paris	3-6	4990
Drilling Optimization (DRL 315)	Online	9-13	2490
Advanced Casing Design and Tubing (DRL 319)	Cairo	2-6	4990
Completion and Production Engineering(DRL 321)	Online	2-6	2490
Fundamentals of Drilling Engineering (DRL 323)	Cairo	2-6	4990
Well Integrity Management (DRL 326)	Online	16-20	2490
Well Integrity (DRL 334)	Online	18-20	1740
Oil Field - Primary Cementing (DRL 335)	Aberdeen	3-6	4990
Appllied Drilling Engineering (DRL 341)	Online	3-6	1740
Drilling Automation (DRL 342)	Online	18-19	1740
Advanced EOR Gas Injection (RES 409)	Stavanger	2-6	4990
Geological Model Validation (RES 414)	Online	5-6	1240
Reservoir Engineering of Fractured Reservoirs (RES 416)	Online	2-4	2490
Heavy Oil Reservoir Engineering (RES 417)	Online	19-20	1320
Practical Application of Geo-statistics in Reservoir Simulation (RES 418)	Online	4-6	1740
Practical Reservoir Engineering and Flow Simulation (RES 421)	Abu Dhabi	15-19	4990
Practical in Geomodelling,Flow Simulation, Economics and..... (RES 422)	London	16-20	4990
SAGO and Solvent-SAGO Design and Analysis in Thermal Recovery (RES 424)	KL	12-13	2490
Steam-Solvent In Thermal Recovery (RES 425)	Online	19-20	1070
PVT Phase Behavior and Properties of Reservoir Fluids (RES 427)	Abu Dhabi	2-6	4990
Capillarity in Porous Media at Different Scale (RES 428)	Online	17-20	2240
Waterflood Management (RES 430)	London	16-20	4490
Integrated Core and Well Logging Data (RES 431)	London	16-20	4990
Hydraulic Fracturing (RES 433)	Oslo	23-27	4990
Underground Gas Storage (RES 434)	Online	23-25	1740
AnIntegrated Approach to PVT and Phase Behaviour Reservoir Fluids (RES 435)	Online	4-6	1740
Waterflood Management (RES 436)	Muscat	4-6	3740
Reservoir Management: Uncertainties and Risk (RES 437)	Stavanger	17-20	3740

Course Title (November 2026)	Location	Date	Price (EUR)
Gas Lift and Well Optimization (PRO 501)	Bangkok	2-6	4990
FPSO Design and Operation (PRO 503)	KL	2-6	4990
Fundamentals of Integrated Production Modelling (PRO 505)	Online	16-20	2490
Artificial Lift and Production Optimization (PRO 508)	Stavanger	16-20	4990
Gas Lift and Optimization in Unconventional Reservoirs (PRO 509)	Online	4-6	1740
Multiphase Flow Metering: Concepts and Applications (PRO510)	Online	2	570
Gas Hydrates, Theory and Practice (PRO 513)	AbuDhabi	16-20	4990
Well Test Interpretation Analysis (PRO 514)	AbuDhabi	16-20	4990
Asphaltene is an old problem, do we havea new solution? (PRO 515)	Online	4-6	1740
Realtime Well Engineering: Optimization, Operation and Monitoring (PRO 517)	Online	3-6	1740
Well Test Analysis (PRO 518)	Online	16-20	2490
Improved Reservoir Idodelling Using Artificial Neural Network (DAT 601)	AbuDhabi	4-6	3740
Python Programming for Geosdentists and Engineers (DAT 603)	Amsterdam	24-26	3740
Data Analytics Workflows for Artificial Lift, Production and... (DAT 609)	Online	12-13	1070
Resource and Reserves Assessment and Project Economics (ECO 700)	Dubai	4-6	3740
Upstream Petroleum Economics: Fiscal System Modelling & Risk (ECO 701)	Abu Dhabi	2-6	4990
Economic Evaluation of Oil and Gas Development Projects (ECO 703)	Online	19-20	1070
Carbon Capture, Utilization and Storage (CCS 800)	Dubai	2-5	4990
Green Ammonia (REN 804)	Oslo	17-20	4990

Course Title (December 2026)	Location	Date	Price (EUR)
International Reporting and Mineral resource Estimation (GEO 111)	Moscow	8-10	3740
Geomodelling Workflow (GEO 119)	Stavanger	7-11	4990
Reservoir Modelling Using Geostatistics (GEO 122)	Abu Dhabi	7-11	4990
Rocdk Physiscs for Quantiraive Reservoir Characteristics (GEO 123)	Abu Dhabi	7-11	4990
HPHT Well Design and Operations (DRL 306)	Dubai	14-18	4990
Stuckpipe Prevention (DRL 325)	Abu Dhabi	6-10	4990
Advanced Drilling Fluids, Pressure and Hydraulic Management (DRL 337)	Online	7-11	2490
Fundamentals of Natural Gas Engineering (RES 401)	Mumbai	14-18	4990
Geological Model Validation (RES 414)	KL	10-11	2490
Determination of Reservoir Initial State for reservoir Simulation (RES 415)	Online	2-3	1240
Reservoir Engineering of Fractured Reservoirs (RES 416)	Accra	14-16	4990
Best Practice for Upscaling in reservoir Simulation (RES 420)	Online	14-18	2490
Best Practice of Enhanced Oil Recovery Projects (RES 429)	Online	14-18	2490
Integrated Core and Well Logging (RES 431)	Online	14-18	2490
Water Flooding Management (RES 436)	Online	2-4	1990
Reservoir Management Uncertainties and Risks (RES 437)	Online	7-10	1990
Gas Lift well Optimization (PRO 501)	Online	14-18	2490
FPSO Design and Operation (PRO 503)	Online	14-18	2490
Artificioal Lift and Production Optimization (PRO 508)	Online	14-18	2490
Full Field Optimization for Gas-Lift assets (PRO 512)	KL	7-11	4990
Gas Hydrates, Theory and Practice (PRO 513)	Online	14-18	2490
Well Test Analysis (PRO 518)	Dubai	7-11	4990
Improved Reservoir Modelling Using Artificial Neural Network (DAT 601)	Online	2-4	1740
Practical Mathematics for Petroleum Geologists (DAT 604)	Online	3-4	1070
Python Programning for Oil and Gas Industry (DAT 608)	Online	6-10	2490
Data Analytics Workflow for Artificial Lift, Production Engineers (DAT 609)	Stavanger	10-11	2490
Upstream Petroleum Economics: Fiscal System Modelling and Risk (ECO 701)	Online	14-18	2490
Economic Evaluation of Oil and Gas Development Projects (ECO 703)	London	3-4	2490
Project Development Best Practices for H2 Generic (REN 806)	Online	3-4	1070
Well Test Analysis (PRO 514)	Online	14-18	2490

FUNDAMENTALS OF CARBONATE RESERVOIRS (GEO 100)

This course provides participants with a comprehensive knowledge of carbonate rocks and their characteristics as oil and gas reservoirs. The course presents methods in the study this unique group of rocks, evaluates their depositional systems, presents their sequence stratigraphy, shows their alteration during diagenesis, and documents their porosity-permeability characteristics. Participants will learn many case studies of carbonate petroleum systems.

DESIGNED FOR

The course is designed for petroleum engineers and petroleum geologists with little knowledge and experience in the study of carbonate rocks. The objective of the course is to establish a foundation so that participants are able to evaluate depositional environments, diagenetic modifications, and reservoir quality of carbonate reservoirs.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

After completing this course, participants will be familiar with the following:

- Fundamentals of carbonate deposition.
- Sequence stratigraphy of carbonate rocks.
- Alteration and porosity-permeability variations of carbonate rocks.
- Evaluation of carbonate reservoirs characteristics.
- Exploration and production.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	12- 16 JAN	2490 €
Online	3 - 7 Aug	2490 €
Dubai	9 - 13 Feb	4990 €
Doha	7 - 11 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This five-day course is designed to provide participants with a complete understanding of carbonate rocks and their characteristics as oil and gas reservoirs. The course presents basic concepts necessary for an understanding of deposition and diagenesis of carbonate rocks. We explore deposition of carbonate sediments in eolian, tidal flats, shelf, bank margin, slope, and deep-water environments. This is followed by examination of carbonate rocks in a sequence stratigraphic framework. The course evaluates diagenetic modifications of carbonate rocks under marine, meteoric, and burial conditions. The last day of the course is allocated to dolomitization and porosity-permeability variations of carbonate rocks.

COURSE OUTLINE

Day 1:

- Carbonate minerals & grain types
- Stability of carbonate grains
- Carbonate classification & factory
- Ramp versus shelf
- Depositional system overview
- Eolian environment
- Tidal flat environment

Day 2:

- Carbonate beaches
- Inner shelf environment
- Middle-outer shelf environment
- Carbonate reefs
- Bank margin environment
- Deep-water environment

Day 3:

- Tectonics and carbonate sedimentation
- Unconformities and exposure surfaces in carbonate rocks
- Principles of sequence stratigraphy
- Sequence stratigraphy of carbonate rocks
- System tracts in carbonate rocks
- Characteristics of sequence boundaries in carbonate rocks
- Marine flooding of carbonate platform
- Carbonate response to changes in sea level

Day 4:

- Overview of carbonate diagenesis
- Marine diagenesis of carbonate rocks
- Meteoric diagenesis of carbonate rocks
- Burial diagenesis of carbonate rocks
- Diagenesis in passive/ collision/ post orogenic margin setting

Day 5:

- Overview of dolomitization
- Dolomitization models
- Dolomitization and carbonate porosity
- Carbonate porosity types
- Evaluation of carbonate reservoirs

INSTRUCTOR

Professor Ezat Heydari is a Professor of Geoscience at Jackson State University (JSU). He received his Ph.D. degree from Louisiana State University (LSU) in 1990. He specializes in sedimentology, stratigraphy, diagenesis, and low temperature geochemistry of carbonate rocks. Heydari has extensive experience in teaching, research, and reservoir characterization of carbonate rocks. His most recent endeavor is the Geology of the planet Mars. He is the author of over 50 published research papers and about 100 conference presentations. He has the honor of being a member of science team with NASA's Curiosity Rover currently exploring Gale Crater, Mars.

SEDIMENTOLOGICAL INPUT TO STATIC CARBONATE RESERVOIR MODEL (GEO 101)

Reservoir characterization provides critical information on the 3D distribution and realization of reservoir heterogeneity and petrophysical properties. This is essential input to both static and dynamic reservoir models, and is crucial for understanding flow in the reservoir during production.

DESIGNED FOR

The course is designed for geoscientists with a basic understanding of carbonate sedimentology, geomodellers who wants to construct geomodels and sedimentologists.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Sedimentary facies and diagenesis and how these affect reservoir properties.
- Rock typing based on pore-type variation.
- Use of artificial intelligence in making predictions in non-cored intervals.
- Integration of sedimentological and petrophysical data.
- Spatial distribution of reservoir properties, from well scale to field scale.
- Reservoir characterization and model building.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

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2026 Schedule and Tuition

Online	4 - 8 May	2490 €
Online	13 - 17 Jul	2490 €
Dubai	16 - 20 Mar	4990 €
Stavanger	10 - 14 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 5-day training course will focus on carbonate sedimentology, diagenesis and reservoir characterization, and how to implement these into a static reservoir model. The focus will be on interpretation and handling of geological data as input to the model rather than the IT technical development of the model. The aim is that course participants will be able to deliver adequate sedimentologic input data to geo-modellers. The input data will include the spatial distribution of sedimentary/diagenetic facies, porosity, permeability and MICP-based saturation heights.

COURSE OUTLINE

Day 1:

- Distinctive aspects of carbonate rocks
- Mineralogical stability and secondary porosity
- Basic components of carbonate rocks
- Faunal assemblages
- Carbonate classification
- Platform profiles and sedimentological implications

Day 2:

- Depositional sequences
- Sedimentary facies
- Diagenesis
- Play types

Day 3:

- Facies models
- Pore-type definitions and application into reservoir modelling
- Pore-types and wireline log

Day 4:

- Porosity and pore-type based saturation modelling
- FWL vs. OWC/GOC/GWC: Porosity and pore-type controls
- Flow zones and barriers
- Special challenges of vuggy/ fractured reservoirs

Day 5:

- Field-wide predictions of different reservoir parameter: effective porosity
- Field-wide predictions of different reservoir parameter: permeability
- Field-wide predictions of different reservoir parameter: saturations

INSTRUCTOR

Arve Lønøy has 37 years of experience as a carbonate geologist within exploration, production/field development, and research. He also has 6 years of experience on siliciclastic North Sea reservoirs. His main specialty is carbonate sedimentology and diagenesis with special emphasis on reservoir characterization. He has developed several proprietary techniques for static reservoir modelling. Arve published (AAPG 2006) a new pore-type classification system that is applied in predictions of permeability, effective porosity, saturation heights and HC contacts. The predictions are further aided by the use of artificial intelligence, using a time-efficient methodology that he has developed. This new methodology for reservoir characterization, and how it is applied in reservoir modelling, was approved by Beicip-Franlab in 2012 audit.

EXPLORATION AND RESERVOIRSDEVELOPMENT FOR CARBONATE (GEO 102)

Not many course providers offer detailed technical courses in sedimentology and stratigraphy as it pertains to the oil and gas business. This course is taught by a consultant who spends the majority of his time solving real-world problems using subsurface data in industry. The course is richly illustrated in seismic, log and core data which are from the instructor's own teaching collection and cannot be found.

DESIGNED FOR

This course is designed for :

- Geologists and Geophysicists
- Petrophysicists and Engineers
- Graduate Students (Masters or Doctorate)

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

After completing this course, participants will be able to:

- Develop a thorough understanding of relative sea-level changes and their effect on the distribution of source and reservoirs rocks.
- Create an awareness amongst participants about the limitations of lithocorrelation and the benefits of chrono-correlation.
- Prepare participants for realistic facies modeling in the creation of geomodels.

REGISTRATION

Registration is now OPEN!

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2026 Schedule and Tuition

Online	6 - 10 Jul	2490 €
Online	7 - 11 Sep	2490 €
Doha	16- 20 Feb	4990 €
Muscat	2 - 6 Mar	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Carbonates host about 60% of the world's hydrocarbon reserves. Even at exceedingly low oil prices, unconventional carbonate plays are still economic. This course covers a step-by-step systematic methodology on tackling the complexity associated with carbonate reservoirs. Modules not only cover the basics of carbonate production, evaporite associations, and sequence stratigraphy but get into topics that directly influence production such as fractures and pore networks. Exercises include examples of real sub-surface data such as well logs, seismic lines, seismic horizon slices, core, and thin-section data. By the end of the course participants will be aware of the commonly encountered challenges one faces in the exploration and development of carbonate reservoirs and how to handle them

COURSE OUTLINE

Day 1:

- Introduction to Carbonate Reservoirs
- Determination of carbonate platform type
- Carbonate-evaporite associations
- Case studies using sub-surface data

Day 2:

- Carbonate Grains, Matrix And Cements
- Different matrix and cement types
- Popular classification schemes of Folk and Dunham
- Classification schemes for microbialites

Exercise: thin-sections and core

Day 3:

- Seismic Sequence Analysis
- How to mark reflection termination
- ABC-Method of seismic facies analysis

Exercise: seismic data provided by the instructor

- Carbonate Sequence Stratigraphy
- Effect of relative sea-level change on carbonate reservoir distribution

Day 4:

- Ichnology And Diagenesis
- Identification of common ichnofacies
- Complex world of carbonate diagenesis
- Fracturing And Mechanical Stratigraphy
- Process of fracturing
- Case studies from producing carbonate reservoirs

Day 5:

- Reservoir Characterization
- Carbonate pore types classification

Exercise: how to calculate NetGross

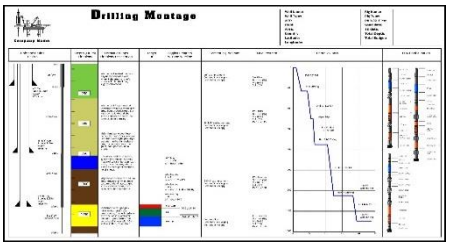
Exercise: on common issue geomodelers face in carbonates

- Unconventional Resource Plays
- Case studies for shallow marine carbonates

INSTRUCTOR

Dr. Ali Jaffri is the CEO of Applied Stratigraphix LLC, has a doctorate in geology, and specializes in sequence stratigraphy. He has nineteen years of experience in sedimentology and stratigraphy related projects in the North Sea, Lower and Middle Indus Basins, Barents Sea, Offshore East, and West Africa, Offshore Mid-Norway, Kohat-Potohar Basin and most US onshore basins. His doctorate at Colorado State University focused on sequence stratigraphy of mixed carbonate-siliciclastic-evaporite systems. Masters Degree was acquired from Oklahoma State University and thesis focused on fractured carbonate reservoirs. Bachelors from the University of Colorado at Boulder involved fieldwork on fluvial stratigraphy.

MODIFYING PORE PRESSURE THEORY FOR PRACTICAL USE (GEO 103)



The course gives a fundamental and thorough introduction to structural geology. The participants will learn about geometrical, kinematical, and mechanical analysis with emphasis on process understanding. Particular subjects that will be taught are: geomechanics, tectonics, inversion, structural modelling reservoirs and reservoir modelling.

DESIGNED FOR

The course is designed for:

- Exploration geologists
- Drilling engineers
- Geophysists

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The participants will learn:

- Theoretical Pore Pressure (PP) concept.
- Theoretical Fracture Gradient (FG) concept.
- Theoretical Over Burden Gradient (OBG) concept.
- Application to 3 Norwegian Basins.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	9 - 13 Feb	2490 €
Online	17 - 21 Aug	2490 €
Stavanger	19 - 23 Jan	4990 €
Oslo	21 - 25 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The main objective of the course is to elaborate guidelines for pore pressure theory and its application in static model. We endeavor to make the best out of the existing procedures and methodologies and strive for excellence in the application. The presentation of the methodologies and procedures will be illustrated by real data and experience from full-field studies performed and accomplished by the instructor. Participants will understand that how the theory developed for 1 part of the world could be modified for elsewhere.

COURSE OUTLINE

Day 1:

- Classical Pore Pressure theory
- Generating Over Burden Gradient (OBG)
- Pore Pressure and Fracture Gradient

Day 2:

- Modification of Over Burden Gradient (OBG) for North Sea
- Pore Pressure (PP)
- Fracture Gradient (FG)

Day 3:

- Dicussion of local basins
- Using data to develop OBG
- Discussion and field example

Day 4:

- Develop a Pore Pressure model for a local basins
- Theory and assumptions
- Discussion and field example

Day 5:

- Theory and assumptions of Fracture Gradient (FG) and Well Bore Stability (WBS)
- Develop FG and WBS for a local basin
- Discussion and field example

INSTRUCTOR

Julian Coker has over 30 years' experience in oil and gas industry, specializes in petroleum geology. He accumulated over 20 years' experience as wellsite geologist working in many international companies. He is author of several scientific paper.

ANALYSIS OF FACIES USING PETROPHYSICAL DATA (GEO 104)

The course will provide opportunity to learn principles and practices on the using of logs to construct lithology and facial model. This workshop takes geology a step further and describes how logs can be used for facies and sedimentological analyses. Modern subsurface geological analysis can and should employ a thorough and sophisticated analysis of well log data.

DESIGNED FOR

The course is designed for:

- Geologists
- Petrophysicists
- Sedimentologists
- Geophysicists

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Sedimentary facies and model with review of core data.
- Logs and seismic stratigraphy.
- Lithotypes classification and genesis, sedimentary cycles, paleoenvironment reconstructions.
- Sedimentary structures and their lateral distribution.
- Interpretation of paleocurrent data.
- Oil and gas: composition, genesis and entrapment of hydrocarbons.
- Sedimentology and hydrocarbon exploration.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 6 Mar	2490 €
Online	13 - 17 Jul	2490 €
Oslo	9 - 13 Feb	4990 €
Moscow	6 - 10 Apr	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 5-day course is based on a balanced combination of classroom teaching and exercises. The exercises will be carried out as a case study, starting from compiling raw data (core analysis and Logs interpretation), followed by developing facies models and characterizing flow units, and ending up with generating the input data for a facies and reservoir model.

COURSE OUTLINE

Day 1:

- Facial analysis, methodology
- Sand Bodies and their Facies Model
- Core analysis and description
- Lithophysical Properties of Rocks and Electrometric Models of Facies

Day 2:

- Electrometric Models of Facies Unified
- Correlation of Cross Sections
- Sedimentological and Electrometric Models of Facies: Continental, Deltaic, Marine, etc.
- Practicum

Day 3:

- Reservoirs and seals, their sedimentological and electrometrical models

Exercise: Interpretation

Day 4:

- Rhythm-sequence-stratigraphy analysis and wells correlation
- Sedimentary environment: Delta, marine shoreface
- Shelf-carbonates and terrigenous sedimentation
- Seismic interpretation, attributes analysis

Exercise: Interpretation

Day 5:

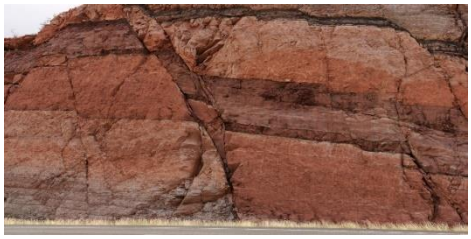
- Deep marine sedimentation
- Method of local prediction of the lithological traps by electrometric models
- Diagnostic signs of facies
- Forecast of lithological traps

INSTRUCTOR

Dr. Natalia Kukina holds a PhD in geology and mineralogy science from the P. P. Shirshov Institute of Oceanology of the Russian Academy of Science. Dr. Natalia is internationally recognized as an energy expert with 30 years' experience in worldwide hydrocarbon exploration and development, achieving a superior record of geological-geophysical success in the discovery of a several world-class oil & gas discoveries.

She holds an associate professor position at the department of oil and gas affairs at Murmansk state Technical University, Geoscientist at research institutes of the Russian Academy of Sciences. She has published about 70 scientific papers. Dr. Kukina has participated in the international marine Arctic expeditions and has been academic and professional instruction in geology and geophysics with the direction and management of high visibility, industry-funded international research program in petroleum geology, sedimentology, basin analysis, and sequence stratigraphy.

STRUCTURAL GEOLOGY (GEO 105)



The course gives a fundamental and thorough introduction to structural geology. The participants will learn about geometrical, kinematical, and mechanical analysis with emphasis on process understanding. Particular subjects that will be taught are: geomechanics, tectonics, inversion, structural modelling reservoirs and reservoir modelling.

DESIGNED FOR

The course is designed for:

- Geologists
- Petrophysicists
- Sedimentologists
- Geophysicists

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Structural geological elements and processes.
- Folding-modifies geometry; induces fracturing and/or faulting and locally porosity and permeability.
- Structure of reservoirs or carrier beds.
- Faulting-induced fracturing, locally modifies geometry, changes locally porosity and permeability.
- To reinforce how these different parameters are interacting to produce the results.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	20 - 24 Apr	2490 €
Online	20 - 24 Jul	2490 €
Moscow	16 - 20 Mar	4990 €
Oslo	10 - 14 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course is based on a balanced combination of classroom teaching and exercises. First two days will focus on more traditional aspects of structural geology and structural styles building. Days 3-5 focus on the integration of structural concepts into other disciplines, and demonstrate the value through a series of examples and case studies. The course will also introduce many concepts that the structural community feels are most important for petroleum industry.

This 5-day training course will focus on the following goals:

1. Build a common awareness of
   - Key established and emerging structural geologic concepts
   - Useful structural geologic tools and techniques
   - Recent value-adding applications to projects
   - Primary structural resources
2. Develop a distinctive, consistent approach to structural analysis
   - Integrated applications across the full spectrum of E&P projects

COURSE OUTLINE

- Geomechanics
- Extensional Tectonics: Structural Styles
- Compressional tectonics:
  - Structural Styles
  - Inversion
  - Strike-slip Tectonics
  - Interpretation Exercises
  - Salt Tectonics
  - Petroleum System
  - Structural Reservoirs
- Interpretation Exercises
- Reservoir Modelling
- Interpretation Exercises

INSTRUCTOR

Dr. Natalia Kukina holds a PhD in geology and mineralogy science from the P. P. Shirshov Institute of Oceanology of the Russian Academy of Science. Dr. Natalia is internationally recognized as an energy expert with 30 years' experience in worldwide hydrocarbon exploration and development, achieving a superior record of geological-geophysical success in the discovery of a several world-class oil & gas discoveries.

She holds an associate professor position at the department of oil and gas affairs at Murmansk state Technical University, Geoscientist at research institutes of the Russian Academy of Sciences. She has published about 70 scientific papers. Dr. Kukina has participated in the international marine Arctic expeditions and has been academic and professional instruction in geology and geophysics with the direction and management of high visibility, industry-funded international research program in petroleum geology, sedimentology, basin analysis, and sequence stratigraphy.

ADVANCED PETROLEUM GEOCHEMISTRY (GEO 106)

PetroTeach offers a 5-days training course on competency in Petroleum Geochemistry. The course addresses the principle concepts and applications of petroleum geochemistry used in finding, evaluating, and producing hydrocarbon (oil and gas). Emphasis is placed on the practical application of geochemistry in solving exploration and production problems and will aid geologists, geophysicists and petroleum engineers accordingly.

DESIGNED FOR

This course is designed for exploration geologists but could also benefit geochemical coordinators, managers and development geologists.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The participants will learn:

- Interpretation of Rock-Eval pyrolysis using source rock and reservoirs samples.
- Type and maturity of organic matter using organic petrography.
- Kerogen classification based on different techniques and geochemical logs.
- Gas chromatography, gas chromatography-mass spectrometry, and source-rock generative kinetics.
- Fluid inclusions, biomarkers, advanced isotopic and diamondoid tools.
- Pitfalls to correct interpretations are illustrated using in-class exercises.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	8 - 12 Jun	2490 €
Online	6 - 10 Jul	2490 €
Dubai	10 - 14 Mar	4990 €
Kuala Lumpur	3 - 7 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The objectives of this course are to provide participants fundamental aspects and applications of geochemistry including production and evolution of organic matter during geological past. Review of laboratory methods including Rock-Eval Pyrolysis, Soxhelet extraction, Column Chromatography, Asphaltene precipitation, GC, GCMS, Head Space gas analysis, Organic Petrography using transmitted, reflected and UV light with sample problems will be discussed in the course. The course will also address the Evaluation techniques used to assess quantity, quality, maturation and depositional environments of petroleum source rocks, oil and gas prone kerogens, oil and gas generation with maturation, primary, secondary and tertiary migration of hydrocarbon and migration mechanisms includes interpretive pitfalls and exercises.

COURSE OUTLINE

Day 1: Geochemistry general overview
- Geochemistry fundamentals
- Source rock depositional environment and quality assessment
- Review of laboratory methods

Day 2: Source rock evaluation
- Thermal maturity evaluation
- Quantitative estimation of generated hydrocarbon
- Data interpretation
- Hydrocarbon migration and mechanisms

Exercises

Day 3: Data interpretation
- Interpretation of Rock -Eval pyrolysis data, pitfalls and exercises
- Interpretation GC and GCMS data, pitfalls and exercises
- Gas chromatography, Stable Isotopes
- Interpretive Pitfalls, Exercises

Day 4: Case Studies
- Thermal and quantitative modeling
- Recognition of precursor OM, depositional environment and maturity based on distinctive biomarker analysis
- Source and age-related parameters
- Oil-oil and oil-source rock correlation
- Interpretive Pitfalls; Exercises

Day 5: Petroleum System Modeling
- Objectives, terms, nomenclature
- Petroleum system elements
- Map and cross section at critical moment
- Table of accumulations, event chart
- Burial history reconstruction
- Timing of petroleum system events

Exercises

INSTRUCTOR

Dr. Mohammadreza Kamali holds PhD degree in Petroleum Geology/Geochemistry from the University of Adelaide, Australia and has accumulated over 30 years of experience working for NIOC, Research Institute of Petroleum Oil Industry, South Australian Department of Mining and Energy, and The Universities of Tehran, AmirKabir, Sharif, Petroleum University of Technology. Mohammadreza is the principal author of several books published chiefly in petroleum geochemistry and over 85 research articles in international journals. He has many years international collaboration experience with companies including: SHELL; TOTAL and Schlumberger; Hydro and Statoil (Norway); Nippon Oil Exploration and JOGMEG (Japan) and universities: Queensland (Australia); Nancy (France); Leoben (Austria); Aachen (Germany) and TU Delft (the Netherlands).

ADVANCED RESERVOIR GEOCHEMISTRY (GEO 107)

The course addresses the principle concepts and applications of reservoir geochemistry used in evaluating, and producing hydrocarbon (oil and gas) reservoirs. Emphasis is placed on the practical application of geochemistry in solving development and production problems and will aid reservoir geologists, geophysicist and reservoir engineers accordingly. Specific topics include the origin of petroleum, petroleum systems, hydrocarbon (oil and gas) alteration and prediction, reservoir continuity and charge history monitoring.

DESIGNED FOR

This course is designed for exploration geologists but could also benefit geochemical coordinators, managers and development geologists.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

On completion of this course, participants will be able to understand: :precursor organic matter using distinct biomarkers.

- Causes of in-situ Oil Alterations.
- Gas chromatography.
- Interpretation of data relevant to fluid inclusions, biomarkers, stable isotopes and diamondoids.
- Pitfalls to correct interpretations are illustrated using in-class exercises.KKKKKKKKKKKK

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	16 - 20 Feb	2490 €
Online	20 - 24 Jul	2490 €
Kuala Lumpur	19 - 23 Jan	4990 €
Dubai	17- 21 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The first day introduces the participants introduction, fundamental aspects and basic applications of geochemistry including: hydrocarbon systems, composition, and methods. The second day of the course starts with biomarker bulk correlation parameters. Evaluation techniques used to assess quantity, quality, maturation of generated hydrocarbons. Primary, secondary and tertiary migration of hydrocarbon and migration mechanisms. Insitu-alterations of oil, Biodegradation (oil+gas) and Interpretive pitfalls and exercises will be discussed in the third day. This will include interpretation of GC and GCMS data. The fourth day of the course starts with Reservoir Geochemistry and case studies including case studies from the world's giant oil and gas fields. Reservoir charge history with examples from sedimentary basins with sample problems. The last day of the course starts with an introduction dynamic reservoir geochemistry concept addressing reservoir continuity, compartmentalization, prediction of oil and gas properties, solid bitumen identification and production allocation.

COURSE OUTLINE

Day 1: Introduction

- Objectives of Reservoir Geochemistry
- Hydrocarbon composition and methods: review of laboratory methods

Day 2: Biomarker bulk correlation parameters

- Quantity and quality assessment
- Thermal maturity evaluation
- Oil to oil and oil to source correlations
- Data interpretation
- Hydrocarbon migration

Exercises

Day 3: In-situ Alteration

- Overview
- Water washing
- Thermal cracking
- Cap rock leakage
- De-asphaltening
- Evaporative Fractionation

Exercises

Day 4: Bacterial and thermochemical sulfate reduction

- Reservoir souring
- Bacterial Sulfate Reduction (BSR)
- Thermochemical Sulfate Reduction
- Thermal regimes

Day 5: Reservoir geochemistry case studies

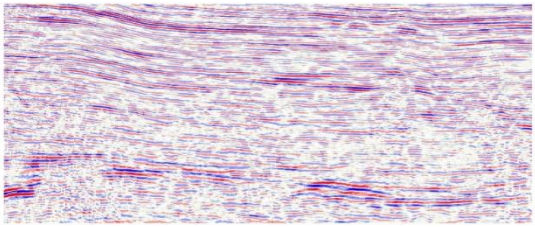
- Oil/gas properties prediction
- Reservoir continuity and compartmentalization
- Assessing solid reservoir bitumen
- Production allocation

Exercises

INSTRUCTOR

Dr. Mohammadreza Kamali holds PhD degree in Petroleum Geology/Geochemistry from the University of Adelaide, Australia and has accumulated over 30 years of experience working for NIOC, Research Institute of Petroleum Oil Industry, South Australian Department of Mining and Energy, and The Universities of Tehran, AmirKabir, Sharif, Petroleum University of Technology. Mohammadreza is the principal author of several books published chiefly in petroleum geochemistry and over 85 research articles in international journals. He has many years international collaboration experience with companies including: SHELL; TOTAL and Schlumberger; Hydro and Statoil (Norway); Nippon Oil Exploration and JOGMEG (Japan) and universities: Queensland (Australia); Nancy (France); Leoben (Austria); Aachen (Germany) and TU Delft (the Netherlands).

PRACTICAL GEOPHYSICS COURSE FOR GEOLOGISTS (GEO 108)



PetroTeach and PSS-Geo are pleased to announce this 3-days intensive course, which is a unique opportunity for Geologists and Petrophysists who want to learn theoretical and practical aspects of geophysics. With plenty of practical examples and exercises, this course will provide a deep understanding of practical geophysics for the oil and gas industry.

DESIGNED FOR

This course is designed for:

- Geologists, petrophysicists and sedimentologists
- Geophysicists

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will:

- Check if seismic is suitable for QI.
- Understand and correct seismic phase.
- Perform AVO analysis.
- Generate and Interpret seismic Attributes.
- Interpret Inverted cubes.
- Recognize processing effected AVO.
- Identify seismic noise, multiples easily.
- Know about Poststack “Cosmetic”.
- Understand basic processing sequences.
- Tell your geophysicist that you also know.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Oslo	26 - 28 Aug	3740€
Oslo	23 - 25 Sep	3740€

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 3-days training course will focus on application of geophysical attributes to prove geological models by individual approach to every participant. The training method is a combination of lectures, discussions, exercises on real field case and demonstration.

COURSE OUTLINE

Day 1:

- Introduction to geophysics
- AVO Effects
- Seismic attributes, classes, interpretations
- Practice on promax/Kingdom, calculate and interpret seismic attributes
- Processing sequence effected AVO anomalies and seismic headers/ well tie and seismic phase

Day 2:

- Rock physics templates for inverted volumes interpretation
- Rock physics modelling, gather modelling, wedge modeling
- Practice on promax, seismic preconditioning, velocity, stacks, AVO classes highlights
- Inversion: types, advantages and interpretation
- Inverted volumes interpretation/ alternative DHI methods

Day 3:

- Overview of seismic processing sequence, Types of noise in your seismic
- How to verify a multiple or flat spot?
- Exercise on Promax

INSTRUCTOR

Vita Kalashnikova accumulate over 15 years of Exploration and Development experience within Oil & Gas, with proven record of successfully predicted and evaluated more than 50 prospects for E&P companies in North Sea, Norwegian shelf, Barents Sea, Oman bay, Persian Gulf, Middle East, and West .Africa. Vita is author of 13 publications in conferences and journals. She successfully Managed research cooperation, developed several new geophysical exploration approaches and proprietary techniques, and successfully implement it production. Vita has developed short course helping geologists and geophysicist and applied geophysical knowledge at daily base exploration work.

SEISMIC DATA AQUISITION AND QUALITY CONTROL (GEO 109)

Participants will acquire both theoretical concepts and hands-on practical with applications and case studies on logging techniques in oil reservoir. This course addresses a wide variety of issues and how better decisions can be made through the lens of formation evaluation.

DESIGNED FOR

The course is designed for the acquisition quality control personnel (early stage professionals), management and personnel of acquisition related departments.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The learning objective of the top-most level content of the course are:

- Land and marine seismic data acquisition.
- How to quality control seismic data.
- How to control parameters in seismic data.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	4 - 6 Mar	1740 €
Online	5 - 7Oct	1740 €
London	5 - 7 Aug	3740 €
Moscow	21 - 23 Jul	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The primary focus for the course is to provide the attendees with gained knowledge and experience related to introduction in the petroleum geology, seismic acquisition methods, and quality control of the seismic data and interpretation of seismic information.

COURSE OUTLINE

Day 1:

- Petroleum Geology
- Location of the oil and gas deposits around the world
- Structure and formation of the largest oil and gas provinces and deposits
- Acquisition methods - introduction
- Applied geophysics

Day 2:

- Land Seismic data acquisition:
  - Planning
  - Methods
  - Survey methods
- Marine Seismic data acquisition:
  - Planning
  - Methods
  - Survey method

Day 3:

- Quality control of the acquired seismic data:
- Control parameters
- Visual check – what we see and what can be wrong
- First brake check
- Organization of daily control
- Questions
- Self-check tests and discussion the tests results

INSTRUCTOR

Dr. Yulia Cherepanova is a geologist and mining specialist with over 10 years of technical, scientific research and business development experience in leading international mining and oil/gas service and consulting companies. Having started out as a diamond exploration geologist (Russia), Yulia subsequently worked in seismic exploration in Schlumberger (Egypt) in its quality control department, and in academia where she was awarded a PhD degree in geoscience (Denmark), and in a prominent mining consultancy (UK) providing international business development, project appraisals, quality control and technical due diligence to clients. Yulia defended the PhD and published the scientific articles on the crustal structure of the West Siberian basin and the Siberian craton. Yulia is knowledgeable about quality control, exploration, technical risks and pitfalls of complex mining projects.

CRUSTAL STRUCTURE OF SEDIMENTARY BASINS (GEO 110)

The primary focus for the course is to provide the attendees with gained knowledge and experience related to the crustal structure of the sedimentary basins around the world.

DESIGNED FOR

The course is designed for the new venture exploration geologists and research geoscientists.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The learning objective of the top-most level content of the course are:

- To understand the modern-day knowledge level about the continental sedimentary basins.
- To compare the level of knowledge for different regions around the world.
- To benchmark the level of knowledge and potential of the oil and gas rich basins including Arctic basins.
- To compare the thermal structure of the basins and to correlate it with the oil and gas resources

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	25 - 27 Mar	1740 €
Online	12 - 14 Aug	1740 €
Moscow	24 - 26 Feb	3740 €
London	9 - 11 Sep	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This three days course are based on the most modern knowledge about formation and structure of the basins. The course will demonstrate the hydrocarbon deposits origin theories and the evolution of the origin theories for some sedimentary basins. The course is a comprehensive overview of the present-day knowledge about the sedimentary basins structure and formation.

COURSE OUTLINE

- Continental sedimentary basins around the world:
  - What do we know?
  - Where do we have oil and gas?
  - Tectonic evolution and crustal structure
- The West Siberian basin and the oil and gas rich basins of the East Siberia
- Thermal structure of the sedimentary basins around the world
- Structure and geological history: an integrated interpretation of gravity, magnetic and reflection seismic data
- Offshore sedimentary basins
- Arctic offshore sedimentary basins

INSTRUCTOR

Dr. Yulia Cherepanova is a geologist and mining specialist with over 10 years of technical, scientific research and business development experience in leading international mining and oil/gas service and consulting companies. Having started out as a diamond exploration geologist (Russia), Yulia subsequently worked in seismic exploration in Schlumberger (Egypt) in its quality control department, and in academia where she was awarded a PhD degree in geoscience (Denmark), and in a prominent mining consultancy (UK) providing international business development, project appraisals, quality control and technical due diligence to clients. Yulia defended the PhD and published the scientific articles on the crustal structure of the West Siberian basin and the Siberian craton. Yulia is knowledgeable about quality control, exploration, technical risks and pitfalls of complex mining projects.

INTERNATIONAL REPORTING AND MINERAL RESOURCE ESTIMATION (GEO 111)

Participants will acquire both theoretical concepts and hands-on practical with applications and case studies on logging techniques in oil reservoir. This course addresses a wide variety of issues and how better decisions can be made through the lens of formation evaluation.

DESIGNED FOR

The course is designed for the mining professionals reporting in the GKZ and other national systems, for investment organizations and for management level.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The learning objective of the top-most level content of the course are:

- To understand the international mining project public reporting.
- To understand the modern requirements for environmental and social studies.
- To study the internationally recommended QAQC programme.
- To understand the transition from resources to reserves.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 3 Jul	1740 €
Online	26 - 28 Aug	1740 €
London	15 - 17 Sep	3740 €
Moscow	8 - 10 Dec	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The primary focus for the course is to provide the attendees with gained knowledge and experience related to the International public reporting of the mining project, mineral resource estimation, mineral reserves estimation and the responsibility of the Competent Person. The course will represent influence of the major factors, such as quality of the data, quality control system, environmental and social studies, metallurgical studies, drilling space etc. to the mineral resources category and an investment opportunities. Course will cover the most famous reporting systems - JORC and NI 43-101 as well as will provide an overview of other international formats accepted by stoke exchanges.

COURSE OUTLINE

Day 1:

- Public reporting- who need it? What can it be?
- International standards (JORC, NI-43 101) and GKZ
- Major steps and requirements for the projects form exploration to reserves
- International mineral market
- Equator principal/ IFC Environmental and social performance standards

Day 2:

- JORC Exploration Reporting
- JORC Mineral Resource Estimation

Day 3:

- Mine planning and design
- Mineral processing methods
- Economic evaluation
- Mine closure and rehabilitation
- CP (competent person) - requirements, international institutions, how to become a CP
- CP and reporting - role and responsibility
- CPR - competent person report

INSTRUCTOR

Dr. Yulia Cherepanova is a geologist and mining specialist with over 10 years of technical, scientific research and business development experience in leading international mining and oil/gas service and consulting companies. Having started out as a diamond exploration geologist (Russia), Yulia subsequently worked in seismic exploration in Schlumberger (Egypt) in its quality control department, and in academia where she was awarded a PhD degree in geoscience (Denmark), and in a prominent mining consultancy (UK) providing international business development, project appraisals, quality control and technical due diligence to clients. Yulia defended the PhD and published the scientific articles on the crustal structure of the West Siberian basin and the Siberian craton. Yulia is knowledgeable about quality control, exploration, technical risks and pitfalls of complex mining projects.

FRACTURED RESERVOIRS CHARACTERIZATION (GEO 112)

In addressing of importance of fractured reservoirs, PetroTeach offers this course focusing on Geological related geosciences aspects of naturally fractured reservoirs. These reservoirs are challenging type of the oil reservoir, which needs special attention and treatment. Participants will learn how to characterize fractures from the outcrop to the reservoir using different methods focusing on the fracture's geometry, density, apertures and some other important aspects.

DESIGNED FOR

This course is designed for exploration geologists but could also benefit geochemical coordinators, managers and development geologists.

COURSE LEVEL

o Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn about:

- Geology of Fractured Reservoirs.
- Fracture Characterization.
- Application of Bore Hole Image in Fractured reservoirs.
- Geomechanics in Fractured Reservoirs.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	16 - 20 Mar	2490 €
Online	6 - 10 Jul	2490 €
Abu Dhabi	9 - 13 Feb	4990 €
Dubai	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 5-days course will focus on details of fractures characterization using borehole images methods that allow to measure, classify and calculate the fractures properties. Porosity and permeability related fractures will be discussed and methods of how to calculate those parameters for different will be shown. Geomechanics plays an important role and allow to measure the stress generating the fractures, quantifying the fractures and their cinematic using advanced geomechanics methods.

COURSE OUTLINE

Day 1: Geological introduction to fractures characterization

- Fractures in outcrop: identification, dip and strike measurement
- Stereographic projection of different type of fractures
- Overview of fractures characterization in a structural geology concept

Day 2: Fractured reservoirs

- Fractured reservoirs types (examples and discussion + real images for each type)
- Fractures characterization from borehole images: identification, classification, orientation, morphology, aperture, fractures set, fracture density
- Integration of cores with BHI to better characterize the fractures
- Borehole sampling Bias (Terzagui correction factor)
- Fracture density types and their uses

Day 3: The effect of the fractures on porosity, permeability and fluid flow

- Porosity related fractures
- Permeability related fractures
- The effect of fractures in fluid flow
- Reservoir compartmentalization (conductivity and sealing)

Day 4: Fractured reservoirs and geomechanics

- Relationship between fractures characterization and stress modelization (stress polygon, stress magnitude calculation methods)
- Fractures reactivation detection using 2D & 3D Mohr circle methods

Day 5: Case studies and practice sessions

INSTRUCTOR

Imene Ferhat is accumulate over 10 years of borehole images interpretation, geomechanics and geosciences experience. She joined Baker Hughes as a geoscientist and certified for advanced borehole images and awarded for the efforts and commitments. She became a team lead and contributed in, several integration studies and geomechanics modelling delivered to different companies in Europe, Middle East and Africa.

Imene Joined to the Algerian institute of petroleum (IAP) as instructor, presenting seminars and workshops for engineers in borehole images and geomechanics, and published recently a study titled "Fractures Characterization of the Combro-Ordovician Reservoir of Hassi Messaoud", where she addressed the compartmentalization issue related to fault sealing in the periphery of Hassi Messaoud field

GEOLOGICAL AND RESERVOIR ENGINEERING ASPECTS OF FRACTURED RESERVOIRS (GEO 113)

Naturally fractured reservoirs (NFR) constitute a large portion of the petroleum reservoirs. Description of fractured reservoirs, combined with knowledge of the physics of multiphase flow in fractured rocks, provides the basis for understanding and forecasting the performance of these reservoirs. This course is designed to address this issue.

DESIGNED FOR

This course is designed for:

- Exploration Geologists
- Geochemical coordinators
- Reservoir Engineers

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn about:

- Geology of Fractured Reservoirs.
- Fracture Characterization.
- Application of Bore Hole Image in Fractured reservoirs.
- Geomechanics in Fractured Reservoirs.
- Recovery Mechanisms in Fractured Reservoirs.
- Well testing in Fractured Reservoirs.
- Laboratory procedure for EOR in Fractured Reservoirs.
- Fractured Reservoir Models.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 6 Feb	2490 €
Online	1 - 5 Jun	2490 €
Algeria	2 - 6 Mar	4990 €
Dubai	3 - 7 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 5-days course cover geological and reservoir engineering concepts, methodology, and procedures for characterization of naturally fractured reservoirs. The course will discuss about different problems related to fractured reservoirs including geomechanical aspects s and, fluid flow and EOR, well testing and well performance in fractured reservoirs. Special attention will also be given to laboratory experiments for EOR in fractured reservoirs.

COURSE OUTLINE

Day 1: Geological introduction to fractures characterization

- Fractures in outcrop
- Stereographic projection of different type of fractures
- Overview of fractures characterization in a structural geology concept

Day 2: Fractured reservoirs and geomechanics

- Relationship between fractures characterization and stress modelization
- Fractures reactivation detection using 2D & 3D Mohr circle methods

Day 3: The fluid flow properties of fractured reservoirs

- Porosity & Permeability related fractures
- The effect of fractures in fluid flow
- Reservoir compartmentalization
- Fractured Reservoir Models: Dual Porosity vs. Dual Permeability Model

Day 4: Fractured reservoirs engineering

- Fractured reservoirs types
- Fractures characterization from borehole images
- Integration of cores with BHI to better characterize the fractures
- Borehole sampling Bias
- Fracture density types and their uses
- Performance Characteristics: production mechanisms, GOR, GOC, WOC, Water cut
- Recovery Mechanisms: Expansion, Imbibition, Convection and Diffusion
- Well Testing in Fractured Reservoirs
- EOR in Fractured Reservoirs
- Designing laboratory EOR experiments for Fractured Reservoirs

Day 5: Case studies and practice sessions

INSTRUCTOR

Imene Ferhat is accumulate over 10 years of borehole images interpretation, geomechanics and geosciences experience. She joined Baker Hughes as a geoscientist and certified for advanced borehole images and awarded for the efforts and commitments. She became a team lead and contributed in, several integration studies and geomechanics modelling delivered to different companies in Europe, Middle East and Africa.

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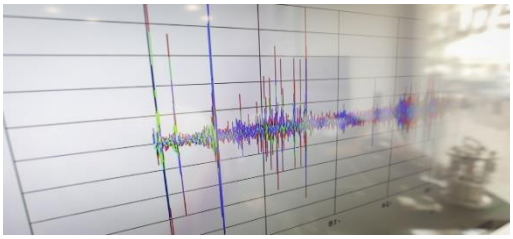
SEISMIC RESERVOIR CHARACTERIZATION (GEO 114)



A reliable reservoir model is an invaluable tool in risk reduction. This course will cover the quantitative interpretation workflow and the production of a much higher resolution reservoir model than possible with well control alone.

DESIGNED FOR

This course is design for geologists, geophysicists and exploration engineers involved in new ventures or exploration who require the skills to evaluate petroleum systems and their hydrocarbon potential.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course, participants will:

- Understand basics of relation between rock physics and seismic attributes.
- Understand theory behind creation of seismic attributes and interpretation of attributes.
- Understand theory and application of seismic inversion.
- Understand application of artificial intelligence in classifying attributes.
- Understand the contribution of seismic controlled inputs to quantitative reservoir models.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Sep	2490 €
Online	19 - 23 Oct	2490 €
Copenhagen	3 - 7 Aug	4990 €
Oslo	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course will cover identifying and evaluating appropriate seismic attributes for mapping reservoir properties and integration of the attribute output with petrophysical data to create quantitative reservoir models. We will also cover the use of well wireline and core data to create rock physics models and the correlation of those models with seismic data with the final aim of creating an integrated reservoir model. The theory and application of both post and pre-stack (AVO) attributes will be covered. We will look at deterministic and stochastic seismic inversion methodology to produce reservoir elastic parameters and using those parameters to convert to lithologies. We will also cover the evaluation of the uncertainty in the output. We will look at using multiple attributes in supervised and unsupervised classification with linear and artificial intelligence methods. We will also cover time-lapse (4D) and multi-component seismic (3C) and azimuthal inversion for fracture densities.

COURSE OUTLINE

Day 1:

- Introduction to QI and reservoir characterization
- Rock physics for seismic reservoir characterization
- Seismic concept review
- Data processing for QI
- Seismic well ties
- Sequence stratigraphy and seismic interpretation

Day 2:

- Post-stack Seismic attributes introduction
- Instantaneous attributes
- Texture attributes
- Spectral decomposition
- Blending attributes
- Tuning and thin bed models

Day 3:

- AVO theory
- Forward modelling of AVO
- Fluid substitution
- Pre-stack AVO attributes
- Cross plotting of attributes and geobody interpretation

Day 4:

- Multi attributes
- Supervised and unsupervised classification
- Low frequency models
- Deterministic inversion
- Lithology determination

Day 5:

- Stochastic inversion
- 4D seismic
- Advanced inversions 4D-AVA-3C
- Latest developments

INSTRUCTOR

Dr. Andrew Ross has over 30 years of experience in seismology and geophysics in both industry and academia. He has worked with using seismic data to determine subsurface rock properties at all scales in the Earth, from reservoir to whole mantle scales. Andrew has a Ph.D. in Geological Sciences from Cornell University and an M.Sc. in Exploration Geophysics from Imperial College, Bachelors (Hons.) in Physics from Hertford College, Oxford. He had a postdoctoral research position at the University of Copenhagen from 1999 to 2003. He has worked for Hess as a seismic interpreter, for Ødegaard supporting seismic inversion, and for Schlumberger supporting inversion and Petrel. Since 2015, he has been an independent consultant running training in seismic interpretation, inversion attributes and quantitative interpretation.

Geosteering: Fundamentals, Planning, and Implementation (GEO 115)

Geosteering, sometimes referred to as well placement, is the art of maximizing production from a planned horizontal well by placing the well in the sweetest parts of a target reservoir using technologies, existing geological knowledge of the field, and integrated interpretation of real-time data acquired while drilling.

DESIGNED FOR

The course is designed for Petroleum Engineers, Drilling Engineers, Geologists, Petrophysicists, Geo-modelers, and Reservoir Engineers. The main target audiences are anybody involved/interested in data acquisition planning, drilling operations, and geosteering.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of the top-most level content of the course are:

- Learn how to perform a proper pre-job planning for geosteering consisting of proper pre-job modelling, logging tool(s) selection, geosteering strategy, etc.
- Learn how different components of well placement are connected and affect each other.
- Learn how an integrated interpretation of real-time data can lead to a successful placement of a well.
- Become familiar with different well placemen techniques and their pros and cons.
- Learn how effectively collaborate with the service provider during pre-job planning, execution, and post-job.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 9 Oct	1740 €
Stavanger	4 - 6 Nov	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The aim of this practical and fruitful course is to provide you with insights into fundamentals of geosteering from different perspectives including pre-job planning, execution, and post-job. The first day of the course will provide you with the pre-required knowledge of technologies such as directional drilling, wellbore surveying, and well logging tools used for a successful placement of a planned well. On the second day, you will get familiar with well placement components, how to carry out a promising pre-job planning, and how a professional pre-job model is made and used. The last day will focus on a successful execution of geosteering along with some useful and interesting case studies.

COURSE OUTLINE

Day 1:

- Drilling high angle wells: Drilling tools, applications, and challenges
- Wellbore surveying: Tools, limitations, and challenges
- TVD calculations and the underlying uncertainties
- Dogleg severity (DLS) and the problems associated
- Real-time data acquisition and transmission systems
- Logging while drilling (LWD): tools, techniques, comparison and limitations of various tools

Day 2:

- LWD tools (continued)
- Geosteering components
- Pre-job planning: pre-job modelling, logging tool selection, geosteering strategy, etc.
- Applied tips and tricks in pre-job planning

Day 3:

- Geosteering techniques: Applications, limitations, and challenges
- Operational tips and tricks in a successful execution of geosteering
- Post-job follow-ups
- Case studies: Geosteered wells in different reservoir types with different challenges

INSTRUCTOR

Ahmad Hossein Zadeh has over 17 years of oilfield experience as an LWD field engineer, well placement engineer, and petrophysicist. Ahmad worked in Schlumberger from 2005 to 2012, 5 years as a logging engineer and then 2 years as a well placement engineer in the Middle East and Africa. During his career in Schlumberger, he was heavily involved in leading various LWD services from pre-job planning to execution and post-job. As a well placement engineer, he was involved in various geosteering operations. Moving up, he joined Equinor (former Statoil) in 2014 in Norway as a petrophysicist. As a petrophysicist, he has been involved in several field development and modelling projects in the North Sea. Ahmad holds a BSc in Drilling Engineering, and an MSc in Reservoir Engineering from Norwegian University of Science and Technology.

ADVANCED ANALYSIS OF CARBONATE SYSTEMS (GEO 116)

Participants in this course will develop an improved knowledge of carbonate stratigraphy and the distribution of carbonate facies. Understanding the different controls over vertical and lateral distribution of porosity and permeability is critical for reducing the risk of inappropriate strategies and for the successful exploration and development of carbonate reservoirs.

DESIGNED FOR

The course is designed for Petroleum Engineers, Drilling Engineers, Geologists, Petrophysicists, Geo-modelers, Reservoir Engineers Management and Simulation and assumes basic knowledge in carbonate geology.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

After completing this course, participants will be familiar with the following:

- Principles of carbonate deposition.
- Global and regional controls.
- Contrast to clastic systems.
- Overview of depositional and stratigraphic settings and models.
- Controls over stratal architecture and depositional sequences.
- 1D, 2D and 3D analysis of carbonate systems.
- Facies and stratigraphic rules for 3D modelling.
- Integration of data.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	5 - 9 Oct	2490 €
Online	2 - 6 Nov	2490 €
Abu Dhabi	3 - 7 Aug	4990 €
Stavanger	21 - 25 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

inThe course introduces advanced concepts in the analysis of carbonate rocks, discusses criteria to characterize their depositional sequences and stratigraphic packaging, compares and contrasts carbonate and clastic systems, highlights practices of 1D, 2D and 3D analysis of carbonate systems, and discuss how facies and stratigraphic inputs are important for modellg. Outcrop case studies will be used to illustrate stratigraphic heterogeneities at different scales, above and below the resolution of seismic and well-log analyses. Participants will learn through theory, practical exercises and discussion sessions to identify risk factors related to spatial heterogeneity.

COURSE OUTLINE

Day 1:

- Introduction to carbonate systems
- Global and regional controls over carbonate deposition
- Carbonate systems through latitude
- Accommodation, carbonate production, sea-level
- Carbonate and clastic systems

Day 2:

- Large-scale geometries of carbonate accumulations
- Platforms, slopes and basins, the elements of depositional morphologies
- Seismic-scale outcrops versus similar systems in the subsurface

Day 3:

- Stratigraphic analysis of carbonate systems
- 1D analysis, carbonate reservoir facies in outcrop, core and logs

Day 4:

- Stratigraphic analysis of carbonate systems in 2D
- Correlation of facies, depositional setting and key surfaces
- Methods and challenges in correlation
- Predictive models for inter-well scale variations

Day 5:

- Analysis of carbonate systems in 3d
- Constructing realistic Discussion of stratigraphic
- 3D models for distribution, geometry, and volume of reservoir units
- Facies and stratigraphic rules
- Integration of data and best practice workflows

INSTRUCTOR

Professor Maria Mutti has over 35 years of experience in the study of carbonate rocks. Dr. Mutti holds degrees for the University of Bologna (Laurea in Geosciences 1987), University of Wisconsin-Madison (MSc Geology 1990), and University of Milanm (PhD 1992). Maria is Chair of Sedimentology at the University of Potsdam since 2002 and has previously held faculty appointments at the University of Southern California (Los Angeles) and research appointments at ETH Zürich and Woods Hole Oceanographic Institution, where she managed the research planning of the International Ocean Drilling Program. She has extensive experience in outcrop and subsurface studies and has worked on carbonate rocks and reservoirs in many basins worldwide. Maria has served in many international committees and societies and has President of SEPM (Society for Sedimentary Geology). Maria has over three decades of experience in consulting, training and development of research programs in applied carbonate sedimentology.

CARBONATE DEPOSITIONAL SYSTEMS AND RESERVOIR SEDIMENTOLOGY (GEO 117)

The course provides a comprehensive foundation from the rock to the seismic scale in the concepts, terminology and models used to characterize carbonate reservoirs. The basic principles taught in the course provide a framework to understand the nature of carbonate heterogeneity and to help to for improving exploration success.

DESIGNED FOR

The course is designed for Petroleum Engineers, Drilling Engineers, Geologists, Petrophysicists, Geo-modelers, Reservoir Engineers, Management and Simulation and assumes little prior knowledge in carbonate geology.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

After completing this course, participants will be familiar with the following:

- Principles of carbonate deposition, components, textures and classifications.
- Overview of carbonate facies types, depositional settings, and models.
- Controls over stratal architecture and depositional sequences.
- Contrast to clastic systems.
- Diagenetic process.
- Controls over Porosity and Permeability.
- Methods of data integration.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	16 - 20 Mar	2490 €
Online	7 - 11 Sep	2490 €
London	2 - 6 Feb	4990 €
Abu Dhabi	3- 7 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course introduces basic concepts in the analysis of carbonate rocks, discusses criteria to recognize their depositional systems and sequence stratigraphy, shows their alteration during diagenesis, and documents their porosity-permeability characteristics. Participants will learn to identify controls on heterogeneity and associated risk factors through the discussion of case studies of carbonate petroleum systems which highlight processes operating at different scales.

COURSE OUTLINE

Day 1:

- Introduction to carbonate systems
- Principles of carbonate production
- Controls over carbonate deposition
- Skeletal, non-skeletal and microbial carbonates
- Classification of carbonate rocks
- Exercise on carbonate classification
- Contrasting carbonates and clastic systems

Day 2:

- From rock type to facies types
- Carbonate depositional models
- Examples of carbonate systems I
- Examples of carbonate systems II

Day 3:

- Stratigraphic architecture & accumulation of carbonate systems
- Controls over large-scale
- Description of stratigraphic architecture
- Contrasting and comparing Carbonate Facies types through geological time
- Impact of biota, on facies types and stratigraphic architecture

Day 4:

- Carbonate systems in different tectonic settings
- Examples of carbonate systems III - Diagenesis
- Examples of carbonate systems IV - Carbonates and evaporates

Day 5:

- Rock types, pore spaces and petrophysics
- Origin of porosity in carbonate rocks
- Classification of Pore Spaces
- Pore spaces and permeability
- Methods in petrophysical characterization

INSTRUCTOR

Professor Maria Mutti has over 35 years of experience in the study of carbonate rocks. Dr. Mutti holds degrees for the University of Bologna (Laurea in Geosciences 1987), University of Wisconsin-Madison (MSc Geology 1990), and University of Milanm (PhD 1992). Maria is Chair of Sedimentology at the University of Potsdam since 2002 and has previously held faculty appointments at the University of Southern California (Los Angeles) and research appointments at ETH Zürich and Woods Hole Oceanographic Institution, where she managed the research planning of the International Ocean Drilling Program. She has extensive experience in outcrop and subsurface studies and has worked on carbonate rocks and reservoirs in many basins worldwide. Maria has served in many international committees and societies and has President of SEPM (Society for Sedimentary Geology). Maria has over three decades of experience in consulting, training and development of research programs in applied carbonate sedimentology.

EXPLORATION AND DEVELOPMENT FOR SANDSTONE RESERVOIRS (GEO 118)

Not many course providers offer detailed technical courses in sedimentology and stratigraphy as it pertains to the oil and gas business. This course is taught by a consultant who spends the majority of his time solving real-world problems using subsurface data in industry. The course is richly illustrated in seismic, log and core data which are from the instructor's own teaching collection and cannot be found.

DESIGNED FOR

This course is design for :

- Geologists and Geophysicists
- Petrophysicists and Engineers
- Graduate Students (Masters or Doctorate)

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

At the end of the course participants will learn:

- Creation and usage of seismic facies.
- Collecting input parameters for geomodeling using core data.
- Identification of common environments of deposition in well logs.
- Core description of fluvial, marginal marine and deepwater siliciclastics.
- Prediction of Net:Gross distributions along depositional strike and dip.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	16 - 20 Mar	2490 €
Online	19 - 23 Oct	2490 €
Dubai	17 - 21 Aug	4990 €
Doha	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course assumes no prior sedimentology background and systematically introduces participants in a landward to basinward transect through all environments of deposition where reservoir quality sands are deposited. For each environment of deposition, they are shown core photos, well-log signatures, and seismic expression. Besides presenting standard facies models, quantitative modeling equations are presented in exercises. By the end of the course, participants will be able to predict reservoir geometries, dimensions, and Net:Gross of clastic depositional systems and look for stratigraphic traps.

COURSE OUTLINE

Day 1:

- Introduction to Sandstone Reservoirs
- Failure in miscalculating reserve estimates
- Description and interpretation of grain sizes and sedimentary structures
- Outcrop, Core and Borehole image logs

Day 2:

- How to measure bioturbation index
- Popular classification schemes of Folk and Dunham

Day 3:

- Deltaic Reservoirs
- Delta classification
- How to differentiate deltas on the shelf vs those that have prograded to or beyond the shelf margin
- Log and cores examples of common sand-body types

Day 4:

- Tidal process and Sand Bodies
- Relationship between deltas and incised valleys
- Relationship between the seismic and log expression of incised valley fill
- Process of fracturing and common fracture types
- Mechanical stratigraphy and its control on production

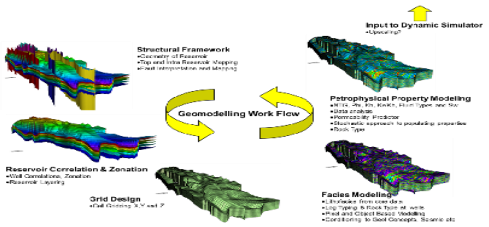
Day 5:

- Architectural elements in deepwater settings
- Core, log, outcrop and seismic examples of channels, lobes and channelized lobes
- Channel complexes
- Sequence stratigraphy from an oil and gas perspective
- Depositional sequences

INSTRUCTOR

Dr. Ali Jaffri is the CEO of Applied Stratigraphix LLC, has a doctorate in geology, and specializes in sequence stratigraphy. He has nineteen years of experience in sedimentology and stratigraphy related projects in the North Sea, Lower and Middle Indus Basins, Barents Sea, Offshore East, and West Africa, Offshore Mid-Norway, Kohat-Potohar Basin and most US onshore basins. His doctorate at Colorado State University focused on sequence stratigraphy of mixed carbonate-siliciclastic-evaporite systems. Masters Degree was acquired from Oklahoma State University and thesis focused on fractured carbonate reservoirs. Bachelors from the University of Colorado at Boulder involved fieldwork on fluvial stratigraphy.

GEOMODELLING WORKFLOW (GEO 119)



This geomodelling course aims to give greater insight into the building of static geomodels that best replicate the true flow behaviour of wells and fields, and gain a better understanding of the complexity of reservoir geology, particularly the large number of parameters and the difficulty of capturing the key heterogeneities that affect flow behaviour.

DESIGNED FOR

The course is designed for:

- Geoscientists (Geology, Geophysics & Petrophysics)
- Reservoir & Petroleum Engineers

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

Participants will learn:

- The main objectives of geomodelling & flow simulation.
- The workflow in constructing geomodel.
- Introductory geostatistics.
- Data analysis and data integration
- In Place Resource Estimates.
- Reserves and Resources definition.
- Build their own Static model.
- Test their Static Model in a Flow Simulation.
- Assess the Resources of their constructed Model.
- Present results and conclusions of tutorial before Peers.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Apr	2490 €
Online	7 - 11 Sep	2490 €
London	2 - 6 Feb	4990 €
Stavanger	7 - 11 Dec	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The range of scales affecting flow behaviour is wide, ranging from the microscopic which includes: mineralogy and clay content (Vshale); pore space geometry (Porosity, Kh, Kv, Sw and Pc) to the large scale which includes: depositional environments, reservoir architecture, trapping mechanism, field geometry and faults, all of which affect connectivity and must be integrated with the microscopic parameters and captured into a geologically coherent gridblock system that it is flow simulated it can replicate accurately the flow behaviour at each well and for the field as a whole. Particular emphasis is given on fluid contacts and transition intervals. The course is split equally between teaching classes in the morning and a tutorial in the afternoon where students are split into teams of 3 or 4 and required to build a static model from scratch, which they will have to test in a flow simulator. Using this model, students will have to determine the in place and recoverable resources. On the final afternoon of the Course, each team will be given 20 minutes to present their evaluation, results and conclusions.

COURSE OUTLINE

Day 1:

- Intro to Geomodelling & Reservoir Characterization
- Geostatistics
- Geomodelling Workflow
- Structural Modelling
- Reservoir Zonation
- Gridding & Rock Typing

Day 2:

- Facies Modelling
- Petrophysical Modelling

Day 3:

- Modelling Techniques
- Collocated Kriging
- Uncertainty In Modelling

Day 4:

- Dynamic Simulation
- Volumetric Estimates
- Resource and Reserves
- Fluid Development Plan (FDP)

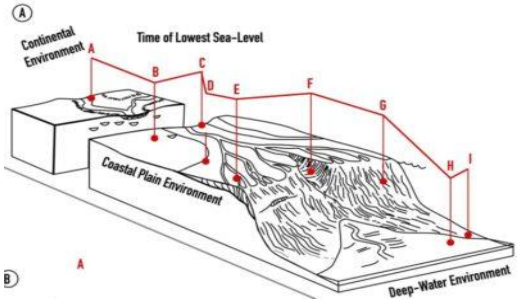
Day 5:

- Field development Plan (FDP)
- Tutorial

INSTRUCTOR

Jean-Marie Questiaux has over 40 years' experience in Oil and Gas Industry covering onshore and offshore Exploration and Production, specialized in the Integration of Geomodelling and Reservoir Engineering; Field Development, Project Economics and Risk Evaluation (Technical & Economics). Former Positions held include Exploration Manager in Libya & Angola (PetroFina) Exploration Manager in Bolivia (Total) and Subsurface Technical Director Nigeria (Addax), Teaching Fellow. Institute of Petroleum Engineering (Heriot Watt University). Specialized in Integrated Studies associated to Field Developments (Green and Brown Fields) integrating G&G, Petrophysics, Reservoir Engineering, Production Technology; Resource Estimation & Project Economics. He is expert in Subsurface Project Set-up, Management, Review and Sanctioning, Corporate Strategy, Short & Medium-Term Business Planning (Production & Reserves) and Integrated Technical Work Program (ITWP).

INTRODUCTION TO BASIN MODELING (GEO 120)



The aim of this course is to practical geological applications of basin analysis studies to petroleum exploration. This course takes the trainee up to just below the level of full play fairway and petroleum systems analysis. However, it stresses the importance of basin evolution to petroleum generation, migration and accumulation.

DESIGNED FOR

This course is design for geologists, geophysicists and exploration engineers involved in new ventures or exploration who require the skills to evaluate petroleum systems and their hydrocarbon potential. Depends on their experience they should attend to introduction, intermediate and advance level.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course, participants will be familiar with the following:

- Exploration, data analysis and interpretation.
- Source rock evaluation.
- Understand basin-forming processes.
- Evaluate controls on sediment.
- Generation, transport and deposition.
- Review key analytical techniques with a focus on burial history analysis.
- Apply and integrate datasets to model basin evolution.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Sep	2490 €
Online	19 - 23 Oct	2490 €
Stavanger	17- 21 Aug	4990 €
Abu Dhabi	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course will include worked examples in different types of basins and will be about the combined roles of tectonics and eustasy, palaeoclimate and biotic evolution. The course will concentrate on the practical uses of integrated datasets and how to apply these tools for basin analysis.

COURSE OUTLINE

Day 1:

- Vitrines reflectance
- Interpretation methods

Day 2:

- What is petroleum system?
- Essential elements
- Essential events
- Why petroleum system modeling?
- Exploration and drilling risks
- Field development
- Connection between reservoirs

Day 3:

- What is the workflow of petroleum system modeling?
- Maturity modeling
- Input, available and output data
- Methodology for calculation

Day 4:

- Multi-dimensional basin modeling workflow
- What is a two dimensional basin model?
- What is a three dimensional model?
- Numerical solutions in hydrocarbon generation and migration
- Introduction to software applications used in basin modeling
- PBM, BasinMod, Temis, PetroMOD, Permedia

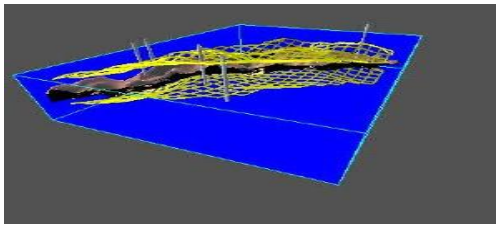
Day 5:

- Workflow of an exploration study and Risks
- Presenting a real world full geochemistry and 1D to 3D basin analysis study

INSTRUCTOR

Dr. Afshin Fathi is a geologist with expertise in basin modeler and organic geochemist. He has more than 15 years of experience in the petroleum industry exploring conventional and unconventional hydrocarbon resources. His educational background in petroleum engineering, petroleum exploration, and mining exploration provides him with great abilities to understand and solve HC exploration problems. He developed new ideas and technologies which led to publishing several papers and two patents. He has experience in basins located in North America, Europe and northern part of the Arabian plate. During his career, he instructed lectures, presentations and on job training for different geological communities, companies and universities, including Polytechnic University of Tehran, Tehran University, National Iranian Oil Company, RIPI, POGC, Canada's Energy Geoscientists. Afshin is a member of AAPG, HGC, HOGC, SPE, and APPIH.

RESERVOIR MODELING USING GEOSTATISTICS (GEO 121)



Spatial data science and geostatistics play an important role in the oil and gas industry by providing a quantitative framework for reservoir forecasting and uncertainty quantification by integrating different types of data, from wells to field seismic attributes. Professor Tapan Mukerji offers this 5-day course for those who want to be more familiar with the concepts and applications of geostatistical algorithms for reservoir modeling.

DESIGNED FOR

Quantitative geologists, geomodelers reservoir geophysicists and engineers concerned with building stochastic reservoir models for reservoir forecasting and uncertainty quantification.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJJECTIVES

After completing this course, participants will be familiar with the following:

- Use spatial data science to analyze reservoir data.
- Understand pros and cons of two-point and multiple point spatial statistics.
- Apply spatial simulation to build reservoir models.
- Integrate well and seismic data to build stochastic subsurface models.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Sep	2490 €
Online	5 - 9 Oct	2490 €
Stavanger	3 - 7 Aug	4990 €
Abu Dhabi	7 - 11 Dec	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The goal of this course is to introduce and teach participants some of the important current techniques of geostatistics used for reservoir modeling. The mathematical theory will be briefly summarized, to provide an intuitive understanding. Strong emphasis will be on conceptual understanding and practical use of the algorithms, such that their capabilities and limitations are understood. Hands-on exercises will be demonstrated, using the open-source SGeMS (Stanford Geostatistical Modeling Software) platform, allowing the attendees to experience first-hand how each algorithm works, and the importance and sensitivity of the key input parameters. This is a hands-on workshop, and the format will

COURSE OUTLINE

Day 1:

- Geostatistics and reservoir modeling
- Review of statistics and probability
- Introduction to SGeMS

Day 2:

- Modeling geological continuity: variograms
- Building training images

Day 3:

- Building high-resolution geo-cellular model
- Building high resolution geo-cellular model
- Sequential simulations

Day 4:

- Using seismic data to constrain models: facies
- Using seismic data to constrain models: petrophysical properties
- Co-simulations

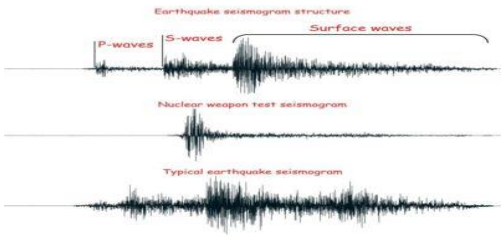
Day 5:

- Multipoint geostatistics
- History matching
- Modeling uncertainty

INSTRUCTOR

Professor Tapan Mukerji is a Professor (Research) at Stanford University where he got his Ph.D. (1995) in Geophysics. Tapan co-directs the Stanford Center for Earth Resources Forecasting (SCERF), the Stanford Rock Physics and Borehole Geophysics (SRB) and Basin and Petroleum System Modeling (BPSM) projects at Stanford University. Tapan combines experience in conducting leading edge research, teaching, and directing graduate student research. He was awarded the Karcher Award in 2000 by the Society of Exploration Geophysicists, and received the ENI award in 2014. He has been an associate editor for Geophysics, journal of the Society of Exploration Geophysicists, and Computers and Geosciences. In addition to numerous journal publications, Tapan has co-authored The Rock Physics Handbook, Quantitative Seismic Interpretation, and The Value of Information in the Earth Sciences, all published by Cambridge University Press. He has been an invited keynote speaker and instructor for numerous short courses on rock physics and geostatistics, in North and South America, Europe, Africa, Australia and Asia.

ROCK PHYSICS FOR QUANTITATIVE SEISMIC RESERVOIR CHARACTERIZATION (GEO 122)



Rock Physics plays an important role in the oil and gas industry by providing the physical links between seismic signatures such as amplitudes, AVO, and impedances, and the rock and fluid properties of the reservoir. Professor Mukerji offers this 5-day course for those who want to be more familiar with how to apply rock physics models for seismic reservoir characterization and uncertainty quantification.

DESIGNED FOR

Geophysicists, Reservoir Geologists, Seismic interpreters, and Engineers concerned with seismic characterization using rock physics.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

After completing this course, participants will be familiar with the following:

- Use rock physics models for quantitative seismic interpretation.
- Model the effects of fluids on seismic amplitudes and AVO.
- Use statistical rock physics and Bayesian machine learning for lithofacies prediction.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

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2026 Schedule and Tuition

Online	14 - 18 Sep	2490 €
Online	2 - 6 Nov	2490 €
Stavanger	17 - 21 Aug	4990 €
Abu Dhabi	7 - 11 Dec	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course covers fundamentals of Rock Physics ranging from basic laboratory and theoretical results to practical "recipes" that can be immediately applied in the field. We will present quantitative tools for understanding and predicting diagnostic seismic signatures of deposition, diagenesis, lithology, pore fluid saturation, stress, pore pressure and temperature, and fractures. We will present case studies and strategies for quantitative seismic interpretation and, suggestions for more effectively employing seismic-to-rock properties transforms in reservoir characterization and monitoring, with emphasis on seismic interpretation and uncertainty quantification for lithology and subsurface fluid detection.

COURSE OUTLINE

Day 1:

- Introduction to SGeMS
- Introduction to Rock Physics, motivation, introductory examples
- Parameters that influence seismic velocities
- Conceptual Overview
- Effects of fluids, stress, pore pressure, temperature, porosity, fractures

Day 2:

- Bounding methods for robust modeling of seismic velocities
- Effective media models for elastic properties of rocks

Day 3:

- Gassmann Fluid substitution
- Partial saturation and the relation of velocities to reservoir processes
- The importance of saturation scales

Day 4:

- Shaly sands and their seismic signatures
- Granular media models, unconsolidated/ cemented sand model
- Velocity dispersion and attenuation

Day 5:

- Rock Physics of AVO interpretation and Vp/Vs relations
- Quantitative seismic interpretation, uncertainty, and rock physics templates
- Example case studies using AVO and seismic impedance

INSTRUCTOR

Professor Tapan Mukerji is a Professor (Research) at Stanford University where he got his Ph.D. (1995) in Geophysics. Tapan co-directs the Stanford Center for Earth Resources Forecasting (SCERF), the Stanford Rock Physics and Borehole Geophysics (SRB) and Basin and Petroleum System Modeling (BPSM) projects at Stanford University. Tapan combines experience in conducting leading edge research, teaching, and directing graduate student research. He was awarded the Karcher Award in 2000 by the Society of Exploration Geophysicists, and received the ENI award in 2014. He has been an associate editor for Geophysics, journal of the Society of Exploration Geophysicists, and Computers and Geosciences. In addition to numerous journal publications, Tapan has co-authored The Rock Physics Handbook, Quantitative Seismic Interpretation, and The Value of Information in the Earth Sciences, all published by Cambridge University Press. He has been an invited keynote speaker and instructor for numerous short courses on rock physics and geostatistics, in North and South America, Europe, Africa, Australia and Asia.

3D PRINTING FOR GEOLOGICAL DATA (GEO 123)

PetroTeach offers this course to provide an overview of different 3D printing techniques that use both rock-like materials (e.g., sand, gypsum, clay) and polymers (e.g., plastics, resins). The course includes several modules on how to digitally design and 3D print models for use in reservoir rock analysis, geomorphology, petroleum geology/geophysics, geomechanics and petrophysics.

DESIGNED FOR

The course is designed for Petroleum Engineers, Drilling Engineers, Geologists, Petrophysicists, Geo-Modelers, Reservoir Engineers, Stratigraphers, Geophysicists, Geomorphologists, Geomechanical Engineers.

COURSE LEVEL

- Beginner to Intermediate

LEARNING OBJECTIVES

Some of the learning objectives of this course include:

- Understand capabilities and limitations of different 3D printing techniques.
- Demonstrate how to digitally design 3D-printable models using CAD software, web platforms, and computed tomography data.
- Provide the assessment of digital models and their relative replicas 3D-printed.
- Characterize how 3D printing can increase the effectiveness of teaching.
- Apply 3D printing in current or future geoscience research.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	4 - 5 Mar	1070 €
Online	7 - 8 Jul	1070 €
Istanbul	5 - 6 Feb	2490 €
Oslo	2 - 3 Apr	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

In this 1-day course participants will gain skills on modeling porous media to investigate fundamental research questions in the areas of single and multiphase fluid flow in reservoir sandstones and carbonate rocks. In addition, 3D-printed models will be compared to their digital equivalents to investigate geomechanical and transport properties (e.g., porosity, pore sizes, grain sizes, fracture apertures, connectivity of pore and fracture networks, wettability). Participants will learn how to deploy 3D-printed models to improve technical communication to diverse audiences (e.g., students, geoscientists, engineers, managers, community stakeholders) as well as they will gain experience with TouchTerrain app that allows 3D-printable terrain models to be generated with no CAD software or GIS experience. The course will provide a unique opportunity to use 3D printing to bridge the gap between computational and experimental analyses of geological data.

COURSE OUTLINE

Day 1:

- Introduction to SGeMS
- Overview of 3D printing techniques
- CAD modeling exercise for geo-data
- Virtual GeoPrint Tours
- 3D printing Digital Terrain data
- Use of 3D printing for communication and education

Day 2:

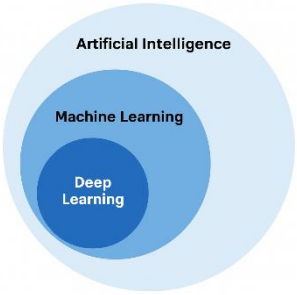
- Bridging digital data and tangible models
- Applications of 3D printing in porous media
- Modeling tangible reservoir rock analogs
- Digital repositories for rocks, minerals and fossils
- Strategies for applying 3D printing in geo-engineering research

INSTRUCTOR

Dr. Sergey Ishutov is currently a researcher with [RG]2 - at the University of Alberta and lecturer at Concordia University of Edmonton. Having work experience with ExxonMobil, Aramco, Shell, and Oxy. Dr. Ishutov is one of the world pioneers in integrating 3D printing for reproduction of porous rock models and publishing this research in geoscience journals. He earned a PhD in geology at Iowa State University, with a specialization in 3D printing geological models. He has received MSc in geology from California State University Long Beach and BSc in petroleum geology from the University of Aberdeen in Scotland.

Dr. Ishutov received multiple awards and research grants from American Association of Petroleum Geologists, Geological Society of America, the Society for Petroleum Engineers, Society of Petrophysicists and Well Log Analysts. He is the author of scientific papers on 3D printing in geosciences supported by industry grants and collaborators from the UK, USA and Canada.

Machine Learning & Deep Learning for Geophysical Applications (GEO 124)



PetroTeach offers this course to provide an overview of the importance of machine learning and deep learning on geophysical application.

DESIGNED FOR

All those interested in understanding the impact Artificial Intelligence will have on the Geosciences. Hence, Geologist and Geophysicists, involved in exploration and development of hydrocarbons or mineral resources, and those involved in geothermal and CO_2 storage can benefit from the course.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The course's primary learning objectives are:

- Familiarization with Machine & Deep Learning
- Geophysical Applications of Artificial Intelligence
- Supervised, Unsupervised, Semi-Supervised Methods
- Classification, Clustering, Regression Applications
- Physics-involved Deep Learning

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 6 Mar	2490 €
Online	6 - 10 Jul	2490 €
Istanbul	9 - 13 Feb	4990 €
Oslo	23 - 27 Apr	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The aim of the course is to introduce how Artificial Intelligence (Machine & Deep Learning) can be applied in geophysics. In the course you will acquaint yourself with the workflows and algorithms used in Machine and Deep Learning. Use will be made of open-source software: Weka and TensorFlow. Power-point presentations and videos will introduce various aspects of AI, but the emphasis is on computer-based exercises. We will apply methods to classify the data: Multilayer Perceptron, Support Vector, Nearest Neighbour, AdaBoost, Trees. Non-linear Regression is used to predict porosity. Quizzes will enhance the learning.

COURSE OUTLINE

Day 1:

- Machine learning
- Supervised Learning
- Classification
- Unsupervised Learning
- Clustering
- Attribute Selection

Day 2:

- Artificial Neural Networks
- Facies Classification,
- Semi-supervised Learning
- Deep Neural Nets
- Ensemble, Trees

Day 3:

- Lithology Segmentation
- Porosity Regression
- Activation Functions
- Deep Learning Networks

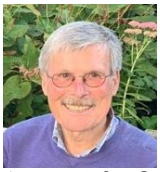
Day 4:

- Use of ChatGPT for DL
- CNN, SVM, GAN, U-net
- Hyper parameters
- Training Deep Learning Strategies
- Deep Learning for 4D
- GAN vs CNN

Day 5:

- ML Models
- Porosity prediction from Seismic
- CNN Salt Segmentation
- Boolean Logics
- DL for Geothermal & CO_2
- AI for Inversion
- U-net Salt Segmentation

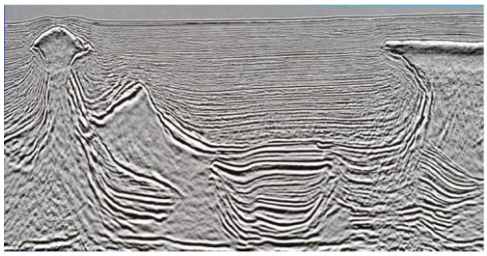
INSTRUCTOR



Dr. Jaap Mondt has a PhD from Utrecht University on "Full wave theory and the structure of the lower mantle" and joined Shell Research to develop methods to predict lithology and pore-fluid based on seismic, petrophysical and geological data. Subsequently worked for Shell in London to interpret seismic data from the Central North Sea Graben.

As part of a Quantitative Interpretation assignment, he was actively involved in managing, processing and interpreting Well Seismic Profiling data, while heading a team for the development of 3D interpretation methods using multi-attribute statistical and pattern recognition analysis. Subsequently he was responsible for Geophysics in the Shell Learning Centre and at the same time part-time professor in Applied Geophysics at the University of Utrecht. From 2001 till 2005 he worked on the development of Potential Field Methods (Gravity, Magnetics) for detecting oil and gas. From 2008 til 2013 he was visiting professor at the German Technical University in Muscat. Finally, he became a champion on the use of EM methods and involved in designing acquisition, processing and interpretation for Marine Controlled Source EM (CSEM) methods.

Advanced Seismic Acquisition & Processing (GEO 125)



For processing the data the options are processing traditionally or using Full Waveform Inversion. The emphasis will be on what is appropriate. The integration with complementary non-seismic data using joint inversion methods is an essential part of the processing. The increasing influence of Machine Learning will be extensively discussed. The learning will be enhanced by exercises and quizzes.

DESIGNED FOR

The course is for geoscientists either active (geophysicists) in designing or specifying (asset team members) seismic data acquisition and processing and the integration with complementary non-seismic data.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The course's primary learning objectives are:
Fit-for-purpose 2D, 3D, 4D acquisition designs
Evaluation of acquisition designs using point-spread-spread-functions
Methods and benefits of modern processing going beyond noise suppression and migration, using all data (Full Waveform Inversion)
Contributions of machine learning to acquisition design and processing
Data requirements for quantitative interpretation

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	9 - 13 Mar	2490 €
Online	6 - 10 Jul	2490 €
Paris	16 - 20 Feb	4990 €
Trondheim	4 - 8 May	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

To obtain the best image of the subsurface we first need optimum acquisition. Optimum in the sense of "fit for purpose". There are several criteria that need to be satisfied. Firstly, the area covered during acquisition should be the prospective area extended sufficiently to provide full-fold and fully imaged data. An acquisition principle that should be adhered to as much as possible is symmetric sampling, which means equal shot and receiver spacing and equal in-line and crossline distances.Several acquisition designs will be discussed, Full Nyquist, Eco-Seis, Opportunistic, Random and Ergodic design.

COURSE OUTLINE

Day 1:
- Geophysical methods
- What represents a seismic section
- Acquisition Open and Urban areas
- Land & Marine Acquisition
- Refraction
- Fresnel, Sampling & Aliasing

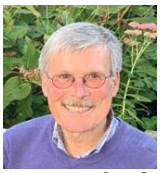
Day 2:
- Seismic Wave propagation
- Body & Surface Waves
- Fresnel area/volume
- Reflection & Transmission
- Stacking & Post-Stack Enhancements
- Sampling & Aliasing

Day 3:
- Seismic Processing
- Statics, Stacking Velocity.
- Multiple Elimination
- Fourier, Radon/Tau-Pi, Hilbert
- DFT, FFT
- FK/Velocity filtering
- Correlation & Convolution

Day 4:
- Least Squares Deconvolution
- Time Migration, Depth Migration
- Diffraction operator
- Reverse Time Migration (RTM)
- Inhomogeneity & Anisotropy
- TD conversion by raytracing

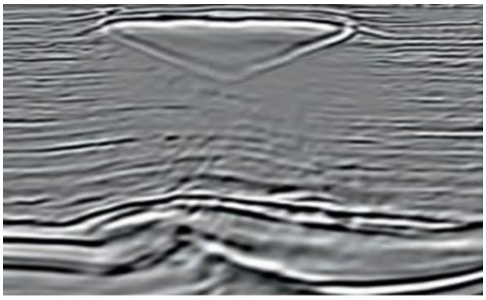
Day 5:
- Illumination & Point-Spread-Functions
- Full Waveform Inversion
- Amplitude Analysis
- Well Seismic Profiling
- Inhomogeneity & Anisotropy
- Effective Media

INSTRUCTOR



Dr. Jaap Mondt has a PhD from Utrecht University on "Full wave theory and the structure of the lower mantle" and joined Shell Research to develop methods to predict lithology and pore-fluid based on seismic, petrophysical and geological data. Subsequently worked for Shell in London to interpret seismic data from the Central North Sea Graben.
As part of a Quantitative Interpretation assignment, he was actively involved in managing, processing and interpreting Well Seismic Profiling data, while heading a team for the development of 3D interpretation methods using multi-attribute statistical and pattern recognition analysis. Subsequently he was responsible for Geophysics in the Shell Learning Centre and at the same time part-time professor in Applied Geophysics at the University of Utrecht. From 2001 till 2005 he worked on the development of Potential Field Methods (Gravity, Magnetics) for detecting oil and gas. From 2008 til 2013 he was visiting professor at the German Technical University in Muscat. Finally, he became a champion on the use of EM methods and involved in designing acquisition, processing and interpretation for Marine Controlled Source EM (CSEM) methods.

Advanced Seismic Interpretation (GEO 126)



This new course will be permanently "under construction". That means there will never be a final version. The reason is that progress in the use of Machine earning (ML) in geophysical interpretation is astonishing and forces instructor to update the course quite often to keep abreast of the latest developments.

DESIGNED FOR

Seismic interpreters who see the future of interpretation moving towards using Artificial Intelligence as a great aid to help them to make the final decisions.

COURSE LEVEL

Intermediate: A good understanding of seismic interpretation using seismic, non-seismic and well log information

LEARNING OBJECTIVES

The course primary learning objectives are:

- Where is the future of seismic interpretation
- How can I use what is presently available in Artificial Intelligence
- Apply Supervised, Unsupervised and Semi-supervised Machine Learning
- How to best use open-source software to build advanced interpretation applications

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	23 - 27 Feb	2490 €
Online	22 - 26 Jun	2490 €
Stavanger	12 - 16 Jan	4990 €
Amsterdam	20 - 24 Apr	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Seismic interpretation has various aspects: structural, stratigraphic and quantitative and in all these ML is being used increasingly. Also, the use of Large Language Models, like ChatGPT and Copilot, although not perfect yet, will play an increasing role in the interpretation workflow. To characterize/classify seismic data (too) many attributes can be calculated. But to keep the interpretation tractable Principal Component Analysis (PCA) or Independent Component Analysis (ICS) are used to handle the large number of possible attributes. In addition, there is a whole range of new options to analyse visual displays of seismic. An example of facies clustering is the use of K-PCA, where K stands for kernel in which PCA is extended to non-linear relationships in the data using Kernel functions. This is only one of the many capabilities of ML that will be used in the Advanced Seismic Interpretation course.

COURSE OUTLINE

Day 1:

- Machine learning
- Supervised Learning
- Classification
- Unsupervised Learning
- Clustering
- Attribute Selection

Day 2:

- Artificial Neural Networks
- Facies Classification,
- Semi-supervised Learning
- Deep Neural Nets
- Ensemble, Trees

Day 3:

- Lithology Segmentation
- Porosity Regression
- Activation Functions
- Deep Learning Networks

Day 4:

- Use of ChatGPT for DL
- CNN, SVM, GAN, U-net
- Hyper parameters
- Training Deep Learning Strategies
- Deep Learning for 4D
- GAN vs CNN

Day 5:

- ML Models
- Porosity prediction from Seismic
- CNN Salt Segmentation
- Boolean Logics
- DL for Geothermal & CO_2
- AI for Inversion
- U-net Salt Segmentation

INSTRUCTOR

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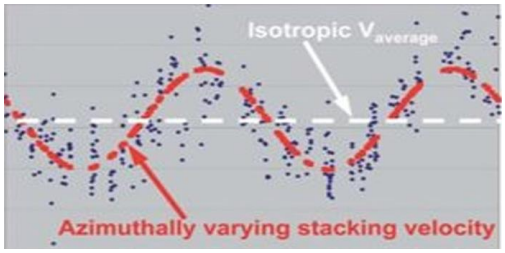
Advanced Velocity Modelling (GEO 127)



Velocities have many uses. They are used in processing as well as interpretation. In processing they allow, for example, Normal Moveout (NMO) corrections to offset arrivals which facilitates stacking of events. This increases the signal-to-noise ratio significantly and makes interpretation easier. In processing the correct velocity-depth model allows "true-to-nature" imaging of the subsurface. But especially in interpretation there are huge benefits in obtaining accurate velocities for the different "geo-bodies", as they can be used for lithology and pore fill determination

DESIGNED FOR

Geophysicist that need to specify whether multi-azimuth acquisition, long offsets or multi-component data is needed for the final interpretation. For quantitative interpretation the correct velocity is of utmost importance, structurally and amplitude wise.

COURSE LEVEL

Intermediate: An understanding of the role of geophysics in the context of exploration and production of oil and gas and a basic knowledge of geophysics and geology.

LEARNING OBJECTIVES

The course's primary learning objectives are:

- Which kind of seismic velocities are used
- What acquisition is needed to determine the velocity
- Use of Full Waveform Inversion for velocity modelling
- The importance of velocities for quantitative Interpretation

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	17 - 19 Feb	1740 €
Online	15 - 17 Jun	1740 €
Stavanger	26 - 30 Jan	3740 €
Amsterdam	13 - 15 Apr	3740 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

In some processing methods, take Full Waveform Inversion (FWI), they can be the main aim of its application. It is fair to say that for an accurate image of the subsurface, an accurate velocity-depth model is paramount in obtaining a "true" image of the subsurface, in terms of structure/geometry as well as amplitudes of reflections needed for quantitative interpretation. Different velocities are in use: Wave Velocity, Particle Velocity, Interval Velocity, Average Velocity, Stacking Velocity, NMO Velocity, DMO Velocity, Migration Velocity, Phase Velocity, Group Velocity, Instantaneous Velocity, Love wave Velocities, Rayleigh wave Velocities and maybe many more. Each of these velocities are derived either by a special method or serve a specific purpose. Also, the accuracy varies. It is important to aim for the appropriate velocity, that means a velocity of sufficient accuracy for the purpose. In the course various velocity determination methods will be discussed and it will become clear that for increasing accuracy not only more advanced processing methods are needed, but also more sophisticated acquisition. Think of multi-azimuth acquisition to derive azimuth-dependent velocities providing information on fractures and in situ stresses.

COURSE OUTLINE

Day 1:

- Geophysical Methods
- Seismic Acquisition & Processing
- Field Records
- Picking NMO velocities
- Surface Multiples

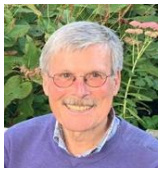
Day 2:

- Internal Multiples
- Marchenko Multiple Attenuation
- Inhomogeneity
- Anisotropic Velocity Models

Day 3:

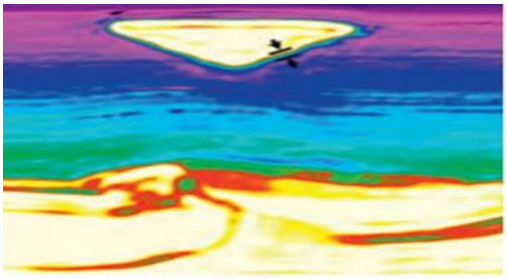
- Point-Spread Functions
- Full Waveform Inversion
- Fractures
- Inversion versus FWI
- Ray-tracing TD conversion

INSTRUCTOR



Dr. Jaap Mondt has a PhD from Utrecht University on "Full wave theory and the structure of the lower mantle" and joined Shell Research in the Netherlands to develop methods to predict lithology and pore-fluid based on seismic, petrophysical and geological data. Subsequently worked for Shell in London to interpret seismic data from the Central North Sea Graben. As part of the Quantitative Interpretation assignment, he was also actively involved in managing, processing and interpreting Well Seismic Profiling data. he was also headed a team for the development of 3D interpretation methods using multi-attribute statistical and pattern recognition analysis. He was also responsible for Geophysics in the Shell Learning Centre while he was part-time professor in Applied Geophysics at the University of Utrecht. From 2001 till 2005 worked on the development of Potential Field Methods (Gravity, Magnetics) for detecting oil and gas. Dr. Jaap was also visiting professor at the German Technical University in Muscat from 2008 til 2013. Finally, he became a champion on the use of EM methods and became involved in designing acquisition, processing and interpretation for Marine Controlled Source EM (CSEM) methods.

AVO & Inversion (GEO 128)



Seismic AVO (Amplitude Versus Offset) describes how the amplitude of seismic reflections changes with increasing offset between the source and receivers and is more properly described as Amplitude Versus Angle of incidence (AVA). The reflection amplitudes change with angle of incidence due to contrasts in elastic rock properties and the type of fluids present in the pore space. The exact AVA for a plane wave incident on a plane interface is described by the Zoeppritz matrix equation.

DESIGNED FOR

The course is designed for geophysicists involved in the design of a seismic survey (acquisition & processing) for AVA or asset team members specifying the requirements in view of reservoir characterization.

COURSE LEVEL

- Advanced

LEARNING OBJECTIVES

The course's primary learning objectives are:

- The reflection of a plane wave at a single isolated interface.
- The various linearization options using different elastic parameterization
- The inclusion of fractures in the expressions
- The inclusion of AVA attributes in AVA inversion
- Use of Machine Learning in AVA applications

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	9 - 13 Feb	2490 €
Online	15 - 19 Jun	2490 €
Doha	23 - 27 Feb	4990 €
AbuDhabi	6 - 10 Apr	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

The main benefits of AVA are, therefore, identification of lithology, fluid saturation and anisotropy. It plays a significant role in supporting reservoir characterization. As the assumption of a single, isolated interface is often violated, more sophisticated approaches are needed and will be discussed.
Various inversion methods exist, from simple to very sophisticated. Among them, the use of AVA attribute inversion will be discussed.
Use of Machine Learning applications will be an important part of the course.
Exercises and quizzes will enhance the learning.

COURSE OUTLINE

Day 1:

- Geophysical Methods,
- Seismic: Workflow, Seismic for AVA
- Rock Physics
- Effective Media

Day 2:

- Lithology & Fluid Prediction
- Gassmann Fluid Replacement
- Inhomogeneity & Anisotropy
- AVA Zoeppritz
- Tuning Effects

Day 3:

- EI, EEI, EPI, Lambda-Mu-Rho
- AVA (ΔR_{PP}, ΔR_{SS})
- AVA R_{ps}
- V_{NMO}-azi, AVAz Fractures,
- AVA VTI-, HTI-, Ortho-Anisotropy

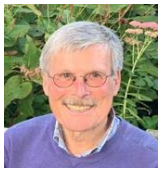
Day 4:

- Hydrocarbon Indicators
- Inversion
- ML AVA Tutorial
- AVA Inversion

Day 5:

- Machine Learning
- ML Regression
- Porosity prediction from seismic
- Use of ChatGPT

INSTRUCTOR



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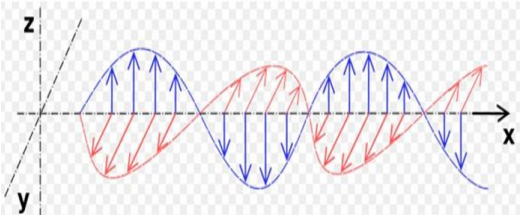
Electric & Electro-Magnetic for Geophysical Applications (GEO 129)



Electrical Direct Current surveys use grounded electrodes for source and receivers. They measure the potential difference using increasing receiver electrode spacing. Changes in measured potentials contain information on the resistivities of the subsurface, which can be related to changing pore fluids, like CO_2 replacing brine.

DESIGNED FOR

All those interested in understanding the use of Electrical and Electromagnetic (EM) methods in Geophysical Applications. These are the geoscientists working in hydrocarbon exploration and exploitation as well as those applying shallow surface geophysics for detecting ore bodies, determining the extend of shallow pollution, foundation engineering, etc.

COURSE LEVEL

- Basic, intermediate or advanced.

LEARNING OBJECTIVES

The course's primary learning objectives are:

- To understand/apply Maxwell's equations
- The use of Electrical Resistivity methods
- FDEM & TDEM in shallow subsurface investigations
- Land, Marine & Airborne EM data acquisition / interpretation
- The use of 3D forward modelling versus inversion

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 4 Feb	2490 €
Online	8 - 10 Jun	2490 €
Oslo	16 - 18 Feb	4990 €
Muscat	6 - 8 Apr	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

Electromagnetic data can be complementary to seismic. Seismic can clearly determine reservoir geometries but is less sensitive to the pore-fluids. Electromagnetic measurements, such as Controlled Source EM (CSEM) measures resistivity directly and hence can discriminate between brine and hydrocarbon fill. When combining the two independent sources of information, seismic will give the structure (container) which then can be used as a constraint for the inversion of EM. Another application is determining the shape of allochthone salt bodies below which hydrocarbons can be present.
Numerous applications can be mentioned in relation to shallow seismic, for example Ground Penetrating Radar for investigating archaeological sites or determining the depth to upwelling deep salt-water due to severe pumping of fresh water for irrigation.

COURSE OUTLINE

Day 1:

- Electrical Resistivity
- Maxwells equations
- Electro-Magnetics
- Pseudo Sections
- DC Response 2D, 2.5D
- EM Reflection & Refraction

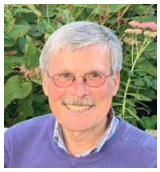
Day 2:

- Active Sources
- FDEM Magnetic Dipole
- FDEM Electrical Dipole
- TDEM Magnetic Dipole
- TDEM Electrical Dipole
- GPR, IP, CSEM

Day 3:

- Natural Sources
- GPR, IP, CSEM
- MT Layered Earth
- Induction RL & TL circuit
- TDEM UXO
- Airborne Acquisition
- 3D modelling

INSTRUCTOR



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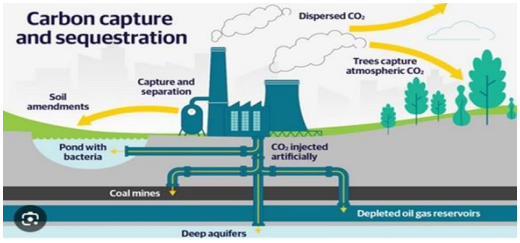
Geophysics for CO_2 Monitoring (GEO 130)



Of the many geophysical methods, three are important for monitoring CO_2. These are Seismic and Electromagnetic and Gravity methods. CO_2 injection can be done for sequestration as well as enhanced oil recovery.

DESIGNED FOR

Geoscientists involved in projects related to either CO_2 sequestration or enhanced oil recovery using CO_2.

COURSE LEVEL

- Basic, intermediate or advanced.

LEARNING OBJECTIVES

The course's primary learning objectives are:

- How to monitor CO_2 sequestration
- Minimum but still appropriate(ergodic) monitor data acquisition
- Fracture detection in reservoir and overburden
- How to monitor enhanced oil recovery using CO2
- The use of Full Waveform Inversion with limited datasets.
- Joint inversion of the various data sets

REGISTRATION

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2026 Schedule and Tuition

Online	26 - 28 Jan	2490 €
Online	1 - 3 Jun	2490 €
Dubai	11 - 13 Feb	4990 €
Stavanger	8 - 10 Apr	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

High resolution seismic, up to 250 Hz, can be acquired with short offsets. For deeper layers, long offset seismic data is collected for Refraction Statics and in case Full Waveform Inversion for the diving waves. For CO_2 sequestration, the presence of fractures and their orientation, being natural or induced is a significant hazard that can be determined from seismic.
Electro-Magnetic can use either grounded or inductive sources (aerial surveys). The aim is to measure the changes in resistivity due to the injection of CO_2
Gravity measurements using either changes in gravity (G_z) or in the Full-Tensor-Gravity (FTG) components. These are very sensitive to shallow density changes
Joint inversion makes full use of these complementary geophysical measurements.

COURSE OUTLINE

Day 1:

- Geophysical Methods
- Seismic acquisition & processing
- Ergodic acquisition
- Anisotropy & Fractures
- Amplitude versus Offset

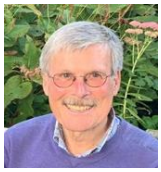
Day 2:

- Earth Gravity field
- Gravity (G_z)
- Full Tensor Gravimeter (tensor)
- Gravity Resolution
- Ergodic sampling

Day 3:

- Electro-Magnetic measurements
- Ground sources
- Marine sources (CSEM))
- Time-Lapse data
- Joint inversion

INSTRUCTOR



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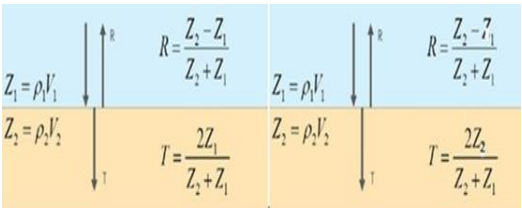
Geophysical Data Acquisition & Processing (GEO 131)



Geophysics provides technology with which we can "look" into the subsurface. It is a key enabler of many activities in the search for hydrocarbons, minerals, and fresh water. It is also extensively used in the domain of monitoring pollution and rejuvenation of polluted sites.

DESIGNED FOR

Geologists, Geophysicists and Petroleum engineers, involved in exploration and development of oil and gas fields and for those involved in projects related to the shallow subsurface. In addition, it would be useful for those dealing with the (geo)physical effects of production of a field.

COURSE LEVEL

- Basic.

LEARNING OBJECTIVES

The course's primary learning objectives are:

- Which geophysical methods are available
- How can seismic be acquired and processed to obtain subsurface models
- Methods based on potential field data :gravity, magnetic
- Applications of electrical and electromagnetic surveys.
- How to use these various datasets jointly.

REGISTRATION

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2026 Schedule and Tuition

Online	5 - 9 Jan	2490 €
Online	1 - 5 Jun	2490 €
Dubai	9 - 13 Feb	4990 €
Stavanger	6 - 10 Apr	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

The course provides the fundamentals of seismic refraction & reflection methods, the use of gravity, magnetic, electrical, and electromagnetic methods. Modern geophysical acquisition and processing techniques will be taught not only using presentations but also by applying the theory in exercises

COURSE OUTLINE

Day 1:

- Geophysical Methods
- Gravity
- Contour Maps
- Gravity sphere, anticline
- A total swing around

Day 2:

- Magnetics
- Gravity & Magnetics
- Resistivity Profiles
- Effective Resistance
- Electromagnetism

Day 3:

- Seismic Acquisition & Processing
- Wave propagation
- Fourier Transform
- Field Record
- Sampling & Aliasing
- Reflection & Transmission

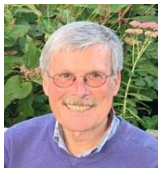
Day 4:

- Correlation, Convolution
- Deconvolution
- Diffraction curves
- Migration using diffraction curves
- Migration using wavefronts
- Depth Migration

Day 5:

- Vertical stretch TD Conversion
- Ray tracing TD Conversion
- AVO
- Direct Hydrocarbon Indicators
- Seismic amplitudes

INSTRUCTOR



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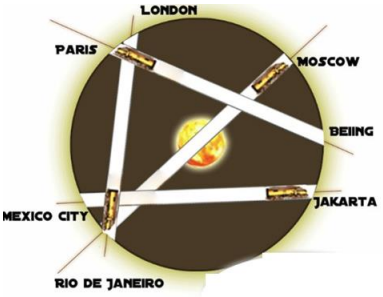
Geophysics for Data Scientists (GEO 132)



In discussions at the EAGE, it was emphasized that not only the Subject Matter Experts (SME's) had to become familiar with the terminology and methods used by the Data Scientists, but also the Data Scientists must understand what geology and geophysics is about. That doesn't mean they need to know the ins-and-outs of these subjects but at least know the terminology and the overall context for which they need to provide the Machine / Deep learning tools. Therefore, this course will be a first step in providing the necessary geophysical background.

DESIGNED FOR

Data Scientists who will be cooperating with geoscientists to develop AI methods for exploration and development of hydrocarbons or mineral resources. Applications for geothermal and CO2 storage are discussed.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The course's primary learning objectives are:

- Which geophysical methods are available
- How can seismic be acquired and processed to obtain subsurface models
- Methods based on potential field data: gravity, magnetic
- Applications of electrical and electromagnetic surveys.

REGISTRATION

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2026 Schedule and Tuition

Online	3 - 7 Aug	2490 €
Online	2 - 6 Nov	2490 €
Dubai	7 - 11 Sep	4990 €
Stavanger	5 - 9 Oct	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

Assumed that the Data Scientists are familiar with mathematics and statistics, the course will include advanced geophysical subjects. A general overview of seismic and non-seismic acquisition, processing and interpretation will be followed by various uses of Machine / Deep learning for Geophysical Applications. Use will be made of a whole range of open-source Deep Learning algorithms for geophysical applications.

COURSE OUTLINE

Day 1:

- Geophysical Methods
- Seismic Acquisition
- Sampling & Aliasing
- Field Record
- Seismic Processing

Day 2:

- Wave propagation
- Reflection & Transmission
- Fourier Transform
- Correlation, Convolution
- Deconvolution

Day 3:

- Diffraction curves
- Migration using diffraction curves
- Migration using wavefronts
- Depth Migration

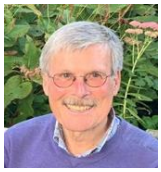
Day 4:

- Stretch TD Conversion
- Ray tracing TD Conversion
- ML: Lithology Classification
- ML Facies Clustering

Day 5:

- ML Oil saturation Regression
- ML Salt Segmentation
- AI Inversions

INSTRUCTOR



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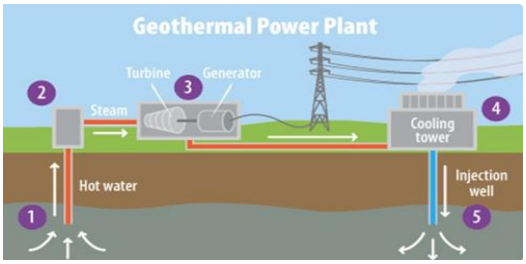
Geophysics for Geothermal Energy (GEO 133)



Seismic is the most important geophysical method for Geothermal Energy. High resolution seismic up to 250 Hz can be acquired with short offsets. For deeper geothermal sources, long offset seismic should be collected, needed for Full Waveform Inversion.

DESIGNED FOR

Geoscientists who either do prospect reconnaissance in new areas/basins or look at cases where the seismic has difficulties and additional supplementary information is needed, for example below salt or volcanic layers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The course's primary learning objectives are:

- How to define suitable reservoirs
- Minimum appropriate ergodic seismic acquisition
- Use of various Inversion methods
- The use of Full Waveform Inversion with limited datasets.
- Joint inversion of the different geophysical data sets

REGISTRATION

Registration is now OPEN!

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2026 Schedule and Tuition

Online	10 - 12 Aug	1740 €
Online	9 - 11 Nov	1740 €
Amsterdam	14 - 16 Sep	3740 €
Dubai	12 - 14 Oct	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

The presence of fractures in reservoir as well as overburden and their orientation, being natural or induced is of utmost importance. It can be derived from seismic, using intermediate for shallow and long offsets for deep reservoirs. OBN acquisition has a huge advantage: long offsets and multi-components can be acquired beneficial for better reservoir interpretation.
Electro-magnetic data (GPR) could be used for mapping shallow geothermal reservoirs.

COURSE OUTLINE

Day 1:

- Geophysical Methods
- Seismic acquisition & processing
- Ergodic acquisition
- Anisotropy & Fractures
- Amplitude versus Offset

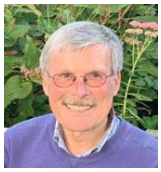
Day 2:

- Full Waveform Inversion
- Multi-component data
- AVA for fracture detection

Day 3:

- Electro-Magnetic measurements
- Land & Marine sources
- Time-Lapse data processing
- Joint inversion

INSTRUCTOR



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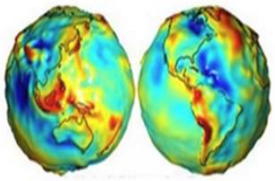
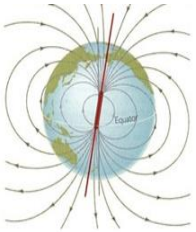
Gravity & Magnetics (GEO 134)





The course is partly based on an EAGE publication (Advances in Gravity and Magnetic Processing and Interpretation by J. Derek Fairhead, ISBN 978-94-6282-175-0).

DESIGNED FOR

Geoscientists who either do prospect reconnaissance in new areas/basins or look at cases where the seismic has difficulties and additional supplementary information is needed, for example below salt or volcanic layers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The course's primary learning objectives are:

- What is gravity and how to model the gravity responses of bodies
- The use of gravity gradiometer data for higher resolution
- The advantages of using gravity together with gradiometer data
- The magnetic field of the Earth
- Combining gravity and magnetic data for interpretation.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	10 - 13 Aug	1740 €
Online	9 - 11 Nov	1740 €
Oslo	14 - 17 Sep	3740 €
Doha	12 - 15 Oct	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

In the first part, various aspects of gravity will be discussed, such as the Earth gravity field, determining anomalies in the global field, establishing the depth of density anomalies, be it spherical or anticlinal and the resolution, which is limited because gravity is a "potential field". Most promising is the development of gravity gradiometer, whereby gradients in the gravity field can be directly measured with great accuracy. These measurements are less sensitive to airplane and ship movement.

In the second part, the Earth's magnetic field, also a "potential field" will be studied. Being due to the internal dipole source, the inherently more difficult interpretation is simplified by applying a transformation to a monopole field (Reduction to the Pole or Equator). As different causative sources can produce the same surface measurements, non-uniqueness is always present. However, promising developments to mitigate these issues will be shown.

Finally, we will discuss and apply the "latest and greatest" that is Machine Learning, a part of Artificial Intelligence, which is step-changing the geoscience world. We will use a standard package called Weka and familiarise ourselves with the "ultimate" open-source software TensorFlow. Exercises will be done using Weka and Google Colab.

COURSE OUTLINE

Day 1:

- Geophysical Methods
- Determining depths of a sphere
- Determining depths of an anticline
- Geoid
- Reference Ellipsoid
- Gravity Reductions

Day 2:

- Gravity Inversion
- Gravity Resolution
- Gravity Gradiometer Data
- Grav-Mag modelling

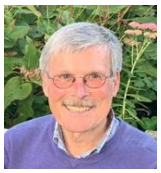
Day 3:

- Magnetics
- Magnetic Inclination & Declination
- Reduction to the Pole / Equator
- Magnetic signature through time
- Magnetic Inversion
- Your Local Magnetic field

Day 4:

- ML Supervised, Unsupervised
- ML Semi-supervised Learning
- ML Field data
- Grav-Mag inversion

INSTRUCTOR



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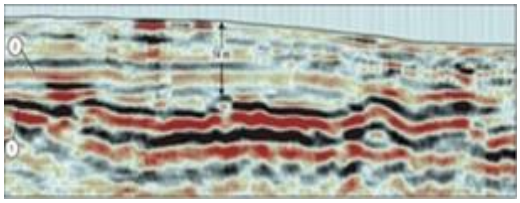
Multi-Physics (GEO 135)



DESIGNED FOR

The course is designed for geoscientists active in promoting and designing supportive non-seismic data acquisition and the integration with seismic data using joint inversion methods.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The course's primary learning objectives are:

- The Gravity & Magnetic acquisition, processing and interpretation
- Electrical & Electromagnetic land and marine surveys
- Induced Polarization
- Joint inversion of multi-scale data
- Use of Machine Learning in the applications

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	22 - 26 Jun	2490 €
Online	9 - 13 Nov	2490 €
Trondheim	6 - 10 Apr	4990 €
Muscat	21 - 25 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

Without any doubt, seismic is the main method used in the energy industry, but non-seismic methods (gravity, magnetics, electrical, electromagnetics) play an important role in not only the early basin reconnaissance, but also in bringing additional independent subsurface information for improved velocity modelbuilding and advanced imaging. This in addition to its important role in shallow subsurface investigations. Use of Machine Learning applications will be an important part of the course. Exercises and quizzes will enhance the learning.

COURSE OUTLINE

Day 1:

- Geophysical methods
- Gravity field of the Earth
- Applying Corrections/Reductions
- Modelling gravity for specific models
- Depth determination

Day 2:

- Magnetics
- Magnetic field of the Earth
- Paleo-magnetism
- Magnetic Inversion
- Magnetic Basement

Day 3:

- E & EM Refraction
- Controlled Source EM
- Resistivity Profiles
- Effective Resistivity
- TDEM, FDEM

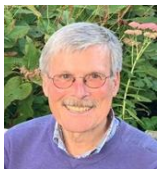
Day 4:

- Skin-depth & Velocity
- Machine learning
- ML NN Rock Classification
- ML for very limited datasets

Day 5:

- Time Lapse Gravity
- Time Lapse Electrical
- ML Rock Regression
- Joint Inversion
- Use of ChatGPT

INSTRUCTOR



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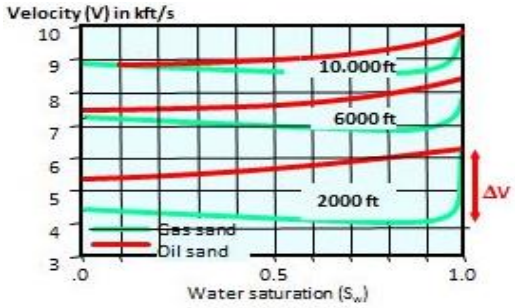
Quantitative Reservoir Characterization (GEO 136)



From seismic we not only need to obtain the structure that could contain hydrocarbons, but also the rock properties so we can decide on whether we are dealing with reservoir rocks (sandstone, carbonates, even shales), sealing rocks (shales, salt) or source rocks (shales, coals).

DESIGNED FOR

Geophysicists who need to determine reservoir properties using information from seismic, petrophysical well and geological data.

COURSE LEVEL

- Advanced

LEARNING OBJECTIVES

The course's primary learning objectives are:

- Appropriate (ergodic) seismic acquisition
- Use of pre-stack data for AVA
- Use of various Rock-Physics Models (Clastics, Carbonates)
- The use of Full Waveform Inversion with limited datasets.
- Use of Machine learning
- Joint inversion of the different geophysical data sets

REGISTRATION

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2026 Schedule and Tuition

Online	15 - 19 Jun	2490 €
Online	9 - 13 Nov	2490 €
Stavanger	13 - 17 Apr	4990 €
Dubai	14 - 18 Sep	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

To know what type of rock is present is important, but also what its porosity is and whether it is fractured, as that is important for permeability. To obtain accurate information on the rock properties we need, in principle, to have applied two-way elastic wave imaging. Considering elastic propagation, which includes mode conversion, is necessary when we analyze the (pre-stack) amplitude variation with angle of incidence (AVA).
From quantitative analysis of pre-stack seismic data, elastic properties of the reservoir will be derived. But these need to be translated into rock properties relevant for production, that is porosity and fluid saturations. That means that a rock-physics model need to be chosen. For clastic reservoirs that is relatively easy, for carbonate reservoirs it is much more non-unique. Machine Learning, which is part of Artificial Intelligence is applied more and more in all domains of the geosciences, including reservoir characterization. Therefore, I have included applications for classification and clustering of seismic reservoirs, using open-source software.

COURSE OUTLINE

Day 1:

- Geophysical Methods
- Seismic acquisition & processing
- Ergodic acquisition
- "True" Amplitude Seismic
- Seismic resolution PSF

Day 2:

- Effective Media
- Anisotropy & Fractures
- Amplitude versus Offset
- Tuning: Wedge and AVA

Day 3:

- Full Waveform Inversion
- Multi-component data
- AVA for fracture detection
- Rock Physics Models
- AI, EI, EEI, Lambda-Mu-Rho

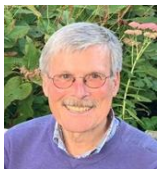
Day 4:

- Machine Learning
- V_NMO_azi
- AVA_VTI
- AVA_Orthorhombic
- ML Classification, Clustering

Day 5:

- Gassmann Fluid Replacement
- TensorFlow
- ML Regression
- Porosity prediction from seismic

INSTRUCTOR



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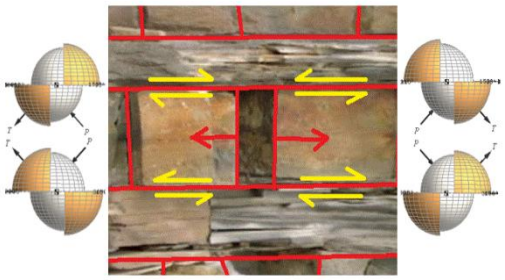
PRINCIPLES OF MICROSEISMIC MONITORING (GEO 137)



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DESIGNED FOR

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COURSE LEVEL

- Advanced ???

LEARNING OBJECTIVES

The course's primary learning objectives are:

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Online	15 - 19 Jun	2490 €
Online	13 - 17 Nov	2490 €
Stavanger	13 - 17 Apr	4990 €
Dubai	14 - 18 Sep	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

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COURSE OUTLINE

Day 1:

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Day 2:

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Day 3:

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Day 4:

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Day 5:

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INSTRUCTOR

**** has a PhD .....

.....

Cased Hole Logging With Approach to Logging Surveillance for EOR and Productivity (PPH 200)

This course is a crucial for reservoir and petroleum engineers as well as Geologists and Petrophysicists dealing with reservoir surveillance for reservoir development and enhancing oil recovery projects. It will provide an overview on petrophysical knowledge to understand the EOR process.

DESIGNED FOR

- Reservoir Engineers
- Reservoir Geologist
- Petrophysicists

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The learning objective of the top-most level content of the course are:

- Go through the petrophysical knowledge to understand the EOR process.
- Tackle the log monitoring milestones before injection in context of ensuring well integrity.
- Interpret the vertical and horizontal PLTs to evaluate the injection efficiency and zonal contribution.
- Evaluate and interpret the different monitoring logs (TDT and porosity) at well location and between wells.
- Demonstrate and discuss case studies on logging surveillance.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	20 - 24 Apr	2490 €
Online	19 - 23 Oct	2490 €
Cairo	2 - 6 Mar	4990 €
Dubai	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

This course will tackle the log monitoring milestones before injection in context of ensuring well integrity (cement and corrosion logs evaluation), and the strategy to select the logs for monitoring. While injection; the logs ensuring injection efficiency (PLT) will be discussed, also the different monitoring logs (Thermal decay time and porosity) evaluation and interpretation at well location and between wells will be tackled. Case studies on logging surveillance for EOR will be presented and discussed. The course will be conducted by group discussion, and exercises and using of Software.

COURSE OUTLINE

Day 1:

- Introduction to Petrophysical Knowledge to EOR Process
- Well Integrity
- Cement

Day 2:

- Corrosion bond logs
- Production Logs Evaluation
- Vertical and Horizontal

Day 3 & 4:

- Surveillance Logs Interpretation
- Sigma log
- C/O log
- Porosity log

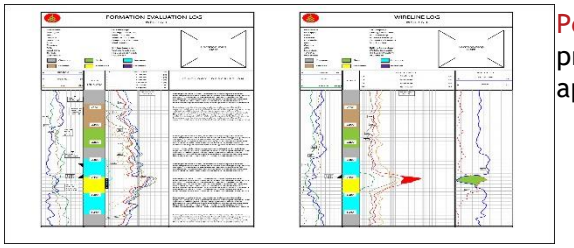
Day 5:

- Case studies on the applications of logging surveillance on EOR project.

INSTRUCTOR

Mostafa Haggag has over thirty-six years of experience in the oil industry, started with Gulf of Suez Petroleum Co. as well site geologist and petrophysics for almost 15 years and further on at ADCO, UAE for 20 years as Professional Petrophysicist. He successfully handled all Petrophysical activities during last 20 years in a professional manner. He was selected by Drilling Division in 2008, as "Man of the Month" for his efforts and contribution to optimize logging operations. He was ADCO Petrophysics Subject Matter Expert (SME), Petrophysics Career Ladder Committee Chairman for 6 years, and Petrophysics coach, mentor, and verifier for CAMS for more than 15 years. Mr. Haggag was ADCO focal point to ADNOC for 2017 data gathering cost optimization and the ADCO focal point to arrange the finalization and complete the backlog well programs for drilling the new wells.

ADVANCED OPEN HOLE LOGGING (PPH 201)



PetroTeach in cooperation with Antaeus offers this 5-day course to provide participants with advanced petrophysical concepts being appropriate for reservoir engineering.

DESIGNED FOR

- Reservoir Engineers
- Reservoir Geologist
- Petrophysicists

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The learning objective of the top-most level content of the course are:

- Acquaintance with the petrophysical knowledge and challenges to understand the reservoir performance.
- Understand the effect of petrophysical parameters on logs interpretation, and how to get them form different sources.
- Go through the principles and applications of advanced, and LWD logging tools and analyze some advanced logs using software.
- Demonstrate and discuss cases studies on using log results on reducing reservoir uncertainties.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Jul	2490 €
Online	7 - 11 Sep	2490 €
Cairo	8 - 12 Jun	4990 €
Muscat	17 - 21 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

This course is needed for geoscientists and engineers dealing with logs and reservoir development. It will provide inherent petrophysical knowledge to interoperate and understand the reservoir performance from the logs. It will tackle the petrophysical properties affecting log interpretation and how to get them from SCAL data. Also the principles of conventional advanced and LWD logging tool physics will be discussed. Log interpretation techniques will be applied. Case studies on implementation of log results to reduce the reservoir uncertainties will be discussed. The course will be conducted by group discussion, and exercises and using of Software.

COURSE OUTLINE

Day 1:

- Introduction to logging
- Petrophysical Reservoir Challenges
- Introduction to logging environment and operations
- Tool Physics Overview
- Conventional Tools

Day 2 & 3:

- Advanced Tools (NMR - ADT- Litho Scanner)
- LWD
- Logs quality control

Day 4:

- Logs Processing and Interpretation
- Determine the interpretation parameters from core data (m&n)
- Log computer processing and Interpretation

Day 5:

- Case studies on the implementation of log results to mitigate reservoir uncertainties

INSTRUCTOR

Mostafa Haggag has over thirty-six years of experience in the oil industry, started with Gulf of Suez Petroleum Co. as well site geologist and petrophysics for almost 15 years and further on at ADCO, UAE for 20 years as Professional Petrophysicist. He successfully handled all Petrophysical activities during last 20 years in a professional manner. He was selected by Drilling Division in 2008, as “Man of the Month” for his efforts and contribution to optimize logging operations. He was ADCO Petrophysics Subject Matter Expert (SME), Petrophysics Career Ladder Committee Chairman for 6 years, and Petrophysics coach, mentor, and verifier for CAMS for more than 15 years. Mr. Haggag was ADCO focal point to ADNOC for 2017 data gathering cost optimization and the ADCO focal point to arrange the finalization and complete the backlog well programs for drilling the new wells.

BOREHOLE IMAGES APPLICATIONS (PPH 202)

In addressing of importance of borehole images and its application in oil industry, this course is designed as the full process of borehole images data processing, QC and full interpretation. A good borehole images analysis could be calibrated to verify petrophysical parameters. It helps as well in selecting intervals for sampling and plays an important role as a fundamental input to geomechanically modelling for drilling optimization, simulation and wellbore stability.

DESIGNED FOR

This course is designed for Exploration Geologists but could also benefit Geochemical Coordinators, Managers and development Geologists.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Borehole images processing steps.
- The importance of data QC.
- Features recognitions and interpretation.
- Bedding interpretation for structural and sedimentological analysis.
- Facies recognition.
- Borehole failures and stress recognition and orientation
- Fracture characterization.

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	23 - 27 Feb	2490 €
Online	7 - 11 Sep	2490 €
Kuala Lumpur	6 - 10 Apr	4990 €
Dubai	3 - 7 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The objectives of this course are to provide participants with a competency in Borehole images interpretation's techniques and geological features recognition. Raw borehole images data are used during the course. Participant are taken step by step through all of the interpretation and QC technics, checking essential curves, recognizing geological features, manual picking of the features, fractures characterization, stress orientation, Structural dip analysis, sedimentological analysis, overview of borehole images applications in petrophysics and geomechanics. Case studies and exercises will be achieved during the course.

COURSE OUTLINE

Day 1: Introduction to BHI

- Introduction to borehole images technologies
- Understanding dips and terminologies
- Data QC workflow and processing steps
- Artifacts recognition and classification

Exercise 1: QC plots and artifacts recognition and classification

Day 2: BHI data processing

- Processing steps for wireline tools
- Processing steps for LWD tools
- Handling damaged data

Exercise 2: Real data processing technics

Day 3: BHI data interpretation uses

- Bedding recognition
- Manual VS automatic dip picking
- Structural dip analysis
- Sedimentological dip analysis
- Fractures characterization
- Fractures density calculation
- Fracture aperture
- Induced fractures

Exercise 3: real data interpretation applying the above analysis and discussing results

Day 4: BHI applications

- Pores detection in carbonates
- Permeability and faults sealing
- Thin beds analysis
- Importance of stress regime
- Stress magnitudes calculation methods
- LOT & XLOT calibration
- Stress polygon

Exercise 4: permeability from BHI logs, stress polygons construction

Day 5: BHI integration

- Integration of BHI with sonic tools
- Integration with NMR
- Integration with core data
- Integration with mineralogy detector

Exercise 5: full integration plot analysis and results

INSTRUCTOR

Imene Ferhat is accumulate over 10 years of borehole images interpretation, geomechanics and geosciences experience. She joined Baker Hughes as a geoscientist and certified for advanced borehole images and awarded for the efforts and commitments. She became a team lead and contributed in several integration studies and geomechanics modelling delivered to different companies in Europe, Middle East and Africa.

Imene Joined to the Algerian institute of petroleum (IAP) as instructor, presenting seminars and workshops for engineers in borehole images and geomechanics, and published recently a study titled "Fractures Characterization of the Combro-Ordovician Reservoir of Hassi Messaoud", where she addressed the compartmentalization issue related to fault sealing in the periphery of Hassi Messaoud field

GEOMECHANICAL ASPECTS OF WELL CONSTRUCTION (PPH 203)

In addressing of the importance of rock mechanical aspects of drilling and well construction, this course will emphasize on various applications related to wellbore stability during drilling and well construction. The course addresses basic rock mechanical issues, including shale physics, wellbore stability evaluation, and is fully covered by case studies and a short field-case exercise.

DESIGNED FOR

The course is designed for petroleum engineers, geologists and drilling engineers with basic knowledge and experience in mechanics or geology. The objective is to establish a background for the participant to be able to participate in well planning and drilling operations related to well design and drilling process optimization with respect to wellbore instabilities.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

The participants will learn:

- The basics of rock mechanics.
- How to derive rock mechanics data.
- The physics of wellbore stability.
- Basic wellbore stability mud weight limits and directional dependency.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	16 - 20 Mar	2490 €
Online	5 - 9 Oct	2490 €
Stavanger	2 - 6 Feb	4990 €
Oslo	14 - 18 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The objective of this course is to provide participants with a competency in geomechanics and will addresses the rock mechanical aspects of drilling and well construction. Participants will be taken step by step through the basics of geomechanics followed by various applications related to wellbore stability during drilling and well construction. A part of the course involves hands on exercises addressing typical wellbore instability issues. The course will address fundamentals of rock mechanics, application areas, building a geomechanical model including analysis of laboratory and log data, physics of wellbore instability, wellbore stability prediction techniques and field cases, where different approaches to ensure wellbore stability during drilling will be discussed.

COURSE OUTLINE

- Introduction to geomechanics
- Fundamentals of rock mechanics
- Borehole instability mechanisms
- Geomechanical model
- Laboratory and log data analysis
- Basic shale physics
- Wellbore instability mechanisms
- Wellbore stability time dependency
- Well fracturing & losses
- Wellbore stability prediction models
- Lithology effect on wellbore stability
- Wellbore stability field cases
- Practical approaches
- Group discussions
- Field case study

INSTRUCTOR

Johan Tronvoll holds M.Sc. in petroleum engineering and Ph.D. in geomechanics from the Norwegian University of Science and Technology (NTNU) and Master of Management from the Norwegian School of Management BI-Executive School. Johan has experience from North Sea drilling operations, and worked within subsurface R&D at SINTEF Petroleum Research in Norway as Senior Scientist later Research Director. He has several years experience working for operators through private companies ORMIS (as co-founder), Weatherford (former ResLab) and co-founded Kyaw Tin Htay International Energy Services in Myanmar. Johan has +30 years' experience in the oil and gas industry and has experience in geomechanics, drilling, completion, production, reservoir management and P&A. Johan published about 50 technical articles and papers in international journals and conferences. He has performed numerous field studies within geomechanics, wellbore stability and sand production and has given several in-house training courses to E&P operators and service providers.

GEOMECHANICS FOR FIELD DEVELOPMENT (PPH 204)

The objectives of this course is to provide participants with a competency in geomechanics and rock mechanical aspects of petroleum field development. Participants will be taken step by step through the basics of geomechanics followed by various applications related to field development in different geological settings. The course is fully covered with field examples, discussions and exercises.

DESIGNED FOR

The course is designed for petroleum engineers and geologists with basic knowledge and experience in mechanics or geology. The objective is to establish a foundation for the participant to be able to participate in field development team addressing geomechanical issues.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

The participants will learn:

- The basics of rock mechanics.
- How to derive rock mechanics data.
- The geomechanics of different disciplines such as drilling, hydraulic fracturing, sand control, water/gas injection and other related disciplines.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	15 - 19 Jun	2490 €
Online	7 - 11 Sep	2490 €
Stavanger	9 - 13 Feb	4990 €
Aberdeen	19 - 23 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The first day introduces the participants to the fundamentals of rock mechanics and the generation of a geo-mechanical model. The second day of the course focus on geological aspects and on derivation of geomechanical properties based on core and log data through laboratory measurements and different models based on log data. The third day focus on well construction and completion including wellbore stability during drilling, hydraulic fracturing and sand production. The fourth day of the course is dedicated to reservoir-related issues such as water/gas injection, thermal effects, and fractured reservoirs characterization. The last day of the course introduces different field cases where different field development & field management strategies are discussed in groups and presented.

COURSE OUTLINE

Day 1:

- Introduction
- Fundamentals of rock mechanics
- Geomechanical applications in E&P

Day 2:

- Geological aspects & stresses
- Geomechanical model
- Laboratory measurements
- Log-based rock mechanical properties

Day 3:

- Wellbore stability during drilling
- Geomechanical aspects of completion design
- Hydraulic fracturing for well completion
- Sand management & sand control

Day 4:

- Reservoir characterization
- Hydro-thermal fracturing during water injection
- Depletion-induced stress changes
- Injection cycles and fatigue effects
- Stress-dependent permeability

Day 5:

- Field cases & group discussions
- Weak, compactive sands
- Heavy oil
- HPHT gas & condensate
- Fractured reservoir

INSTRUCTOR

Johan Tronvoll holds M.Sc. in petroleum engineering and Ph.D. in geomechanics from the Norwegian University of Science and Technology (NTNU) and Master of Management from the Norwegian School of Management BI-Executive School. Johan has experience from North Sea drilling operations, and worked within subsurface R&D at SINTEF Petroleum Research in Norway as Senior Scientist later Research Director. He has several years experience working for operators through private companies ORMIS (as co-founder), Weatherford (former ResLab) and co-founded Kyaw Tin Htay International Energy Services in Myanmar. Johan has +30 years' experience in the oil and gas industry and has experience in geomechanics, drilling, completion, production, reservoir management and P&A. Johan published about 50 technical articles and papers in international journals and conferences. He has performed numerous field studies within geomechanics, wellbore stability and sand production and has given several in-house training courses to E&P operators and service providers.

SAND CONTROL AND SAND MANAGEMENT (PPH 205)

Participants will gain knowledge about rock mechanical aspects of sand management and sand control. Basics of sand production followed by various applications related to sand control and risk management for different completion scenarios will be discussed. The course is fully covered with field cases and exercise.

DESIGNED FOR

The course is designed for petroleum engineers and drilling engineers with basic knowledge and experience in mechanics or geology. The objective is to establish a foundation for the participant to be able to participate in well planning and well operation processes as well as completion design related to sand management and sand control.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

The participants will learn:

- The physics of sand production.
- How to select the best sand control method to minimize production losses.
- Discuss on new technologies for sand control.
- Sand management and sand control options.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	16 - 20 Feb	2490 €
Online	5 - 9 Oct	2490 €
Paris	20 - 24 Apr	4990 €
Stavanger	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The objectives of this course are to provide participants with rock mechanics, borehole stability at different environments of sand production and related problems. Sand "life cycle" and different sand production prediction techniques including wellbore stability, sand lifting & wellbore sand transport and wellhead erosion risk will be introduced and discussed. The course will introduce the concept of Sand Management along with Classical Sand Control techniques including discussions of well productivity, sand transport, sand monitoring, surface facilities design and sand disposal. Two field cases where different field development & sand management strategies will be discussed in groups and presented.

COURSE OUTLINE

Day 1:

- Introduction
- Fundamentals of rock mechanics
- Borehole stability and sand production
- Sand production environments

Day 2:

- R&D background
- Geomechanical model
- Sand prediction models I

Day 3:

- Sand prediction models II
- Risk analysis

Day 4:

- Well completion options
- Sand control technologies I
- Sand management vs sand control

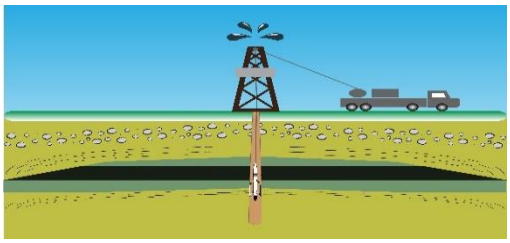
Day 5:

- Heavy oil
- Sand control technologies II
- Sand life cycle management
- Field cases & group discussions

INSTRUCTOR

Johan Tronvoll holds M.Sc. in petroleum engineering and Ph.D. in geomechanics from the Norwegian University of Science and Technology (NTNU) and Master of Management from the Norwegian School of Management BI-Executive School. Johan has experience from North Sea drilling operations, and worked within subsurface R&D at SINTEF Petroleum Research in Norway as Senior Scientist later Research Director. He has several years experience working for operators through private companies ORMIS (as co-founder), Weatherford (former ResLab) and co-founded Kyaw Tin Htay International Energy Services in Myanmar. Johan has +30 years' experience in the oil and gas industry and has experience in geomechanics, drilling, completion, production, reservoir management and P&A. Johan published about 50 technical articles and papers in international journals and conferences. He has performed numerous field studies within geomechanics, wellbore stability and sand production and has given several in-house training courses to E&P operators and service providers.

INTRODUCTION TO PETROPHYSICS USING GEOFIT (PPH 206)



PetroTeach in cooperation with Antaeus offers this 5-day course to provide participants with a practical competency in petrophysical interpretation using a newly cloud-based developed software. Participants will acquire both theoretical concepts and practical knowledge of formation evaluation. Participants will learn data interpretation workflow using the GeoFit™ petrophysics module.

DESIGNED FOR

The course is designed for Petroleum Engineers, Drilling Engineers, Geologists, Petrophysicists, Geo-modelers and Reservoir Engineers

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

After completing this course, participants will learn:

- Logging tools and equipment.
- Physics of the different open hole tools.
- Quality control of the different measurements.
- Petrophysics interpretation workflow.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	22 - 26 Jun	2490 €
Online	5 - 9 Oct	2490 €
Stavanger	23 - 27 Feb	4990 €
London	7 - 11 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The objectives of this course are to provide participants with a competency in open hole logging data acquisition and formation evaluation. The course addresses different aspects of logging such as logging environment, data acquisition, data quality control and data interpretation. Through a combination of presentations and exercises participants will learn how to conduct quick-look formation evaluation. The GeoFit software package is used through the courses to apply theory to practical data.

COURSE OUTLINE

Day 1:

- General introduction
- Borehole environment and drilling operations
- Logging operation in Open hole
- Formation evaluation overview
- Practical session: GeoFit overview

Day 2:

- Data quality control
- Caliper log
- Gamma ray acquisition
- Spontaneous potential overview
- Neutron porosity
- Density tools
- Practical session: Loading data, displaying data, Volume of shale calculated

Day 3:

- Acoustic & Magnetic resonance tools and interpretation
- Porosity and lithology combining neutron, density and acoustic ...
- Practical session: Porosity and lithology practice (crossplot interpretation)

Day 4:

- Resistivity tools and interpretation
- Saturation calculation
- Formation pressure overview
- Fluid contacts and flow units
- Practical session: Saturation calculation and reservoir summation

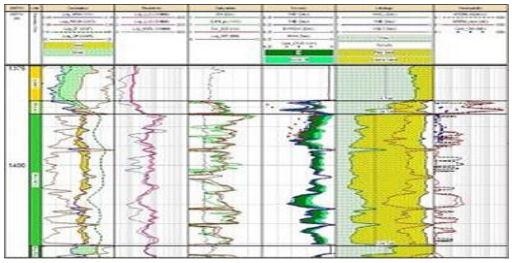
Day 5:

- This last day is devoted to a practical project. Students will realize a full petrophysical interpretation from data QC to results presentation

INSTRUCTOR

Florence Einaudi is a specialist in Geosciences with over 22 years of technical, scientific research and software development. She holds a PhD in Geology and Petrophysics from the Aix-Marseille University. Her work experience includes 10 years as a research scientist in the frame of the International Ocean Discovery Program and was a teaching assistant at the University of Montpellier. Her research was focused on the physical properties of the oceanic crust using wireline data and core data from the Oman ophiolite. During her 10-year tenure with Schlumberger, she was a wireline petrophysicist domain champion for the Caspian region, a Global Training Manager for well-centric software and a domain champion for surface logging in Brazil. She has been teaching numerous courses at all levels covering geology, logging data acquisition, petrophysical interpretation, and software training. Her current role is with Antaeus Technologies as Senior Software Support for Geofit platform.

ADVANCED PETROPHYSICS (PPH 207)



PetroTeach in cooperation with Antaeus offers this 5-day course to provide participants with advanced petrophysical concepts being appropriate for reservoir engineering.

DESIGNED FOR

- Reservoir Engineers
- Reservoir Geologist
- Petrophysicists

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The learning objective of the top-most level content of the course are:

- Provide the different techniques to establish hydraulic flow units from core data; RQI, Winland R35, Pittman.
- Discuss and practice the different methods to propagate the defined HFU for uncored wells and intervals. NN, Fuzzy Logic, MRL, SOM, Cluster Analysis, PCA, Contingency Tables.
- Establish the saturation height function (SHF) for different HFU either on capillary or log.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 6 Feb	2490 €
Online	3 - 7 Aug	2490 €
Abu Dhabi	6 - 10 Apr	4990 €
Cairo	20 - 24 Jul	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course is essential for reservoir engineers, reservoir geologists, and Petrophysicists dealing with reservoir modeling. The course will provide the different techniques to establish hydraulic flow units from core data. Also, it will discuss the different methods to predict the defined HFU for uncored wells and intervals. Then, it will define the saturation height function (SHF) for different HFU either on capillary based or on log based.

COURSE OUTLINE

Day 1:

- Data Preparation and QC
- Data loading and visualization
- Data Cleaning
- Generate HFU:
- RQI

Day 2:

- Winland R35
- Pittman
- Predicate HFU/ Permeability
- Fuzzy Logic
- Multiple Linear Regression

Day 3 & 4:

- Cluster Analysis
- Neural Network
- Self-Organizing Maps
- Principle Component Analysis
- Contingency Table

Day 5:

- Saturation Height Modeling
- Capillary Pressure Based
- Logs Based

INSTRUCTOR

Mostafa Haggag has over thirty-six years of experience in the oil industry, started with Gulf of Suez Petroleum Co. as well site geologist and petrophysics for almost 15 years and further on at ADCO, UAE for 20 years as Professional Petrophysicist. He successfully handled all Petrophysical activities during last 20 years in a professional manner. He was selected by Drilling Division in 2008, as "Man of the Month" for his efforts and contribution to optimize logging operations. He was ADCO Petrophysics Subject Matter Expert (SME), Petrophysics Career Ladder Committee Chairman for 6 years, and Petrophysics coach, mentor, and verifier for CAMS for more than 15 years. Mr. Haggag was ADCO focal point to ADNOC for 2017 data gathering cost optimization and the ADCO focal point to arrange the finalization and complete the backlog well programs for drilling the new wells.

INTRODUCTION TO DRILLING ENGINEERING (DRL 300)

Well cutting removal by circulating drilling mud on bottom well

PetroTeach offers the 5 days course to build up foundation and a basis for understanding the drilling and well construction operations. Basic equipment and procedures involved with drilling are reviewed regardless of academic background. Directional drilling aspects introducing directional wells as well as horizontal and extended reach wells will be discussed.

DESIGNED FOR

This course is in the basic level and is intended for personnel associated and involved with the drilling and well construction operations. This course is suitable for logistics staff, HR, contracts, finance, Legal, IT and the other support services involved in oil and gas operations.

COURSE LEVEL

- Basic

LEARNING OBJECTIVES

The participants will learn and understand:

- Drilling process from geology, selection of a drilling location, well design, and rig types.
- The process, the people, the equipment and terminology.
- Basic understanding of geology, reservoirs, process of exploration and exploitation a reservoir.
- Well design process, rig types, rig systems, drilling tools, bitts and drill string, drilling fluids and directional drilling.
- Casing and cementing process, drilling challenge, well control, completions and workover.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 6 Mar	2490 €
Bangkok	2 - 6 Feb	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

First, an introduction of the drilling engineering, geology and reservoirs associated with the oil and gas industry is stated. The planning process of a well costs, contracts, services, logistics and safety aspects of the drilling operations required to get a well design completed will be discussed in the second day. The third day will be associated to drilling fluids and hydraulics in a well and directional drilling aspects. Next, it introduces casing and cementing as well as the evaluation with logging and coring. The last day of the course starts with an introduction to well control followed by how to complete a well.

COURSE OUTLINE

Day 1: Geology

- Introduction to drilling operation
- History of the oil and gas industry
- Geological time
- Petroleum rock properties
- Pressure regimes in the reservoir
- Exploration and production process

Day 2: Well Design and Safety

- Planning the well
- Planning team and costs
- Contracts and services
- Logistics
- Safety alerts and risk management
- Handling major incidents
- Rig types and systems
- Drilling equipment's

Day 3: Directional Planning

- Rig and equipment requirements
- BOP specifications
- Rig and equipment requirements
- HPHT choke manifolds
- Mud gas separator sizing
- Temperature safety aspects
- Mud testing requirements
- Hydraulics and ECD
- Barite mixing requirements
- Solids control and Barite Sag
- Pit discipline and finger printing the well
- Fluid compressibility & density
- Gas solubility

Day 4: Cementing

- Well control for HPHT
- Ballooning, wellbore breathing
- Temperature monitoring
- Drilling and tripping operations
- Data collection and MWD/LWD

Day 5: Running Casing, Drilling with Casing

- Well testing practice
- Material selection and metallurgy for tubing and wellheads
- Wellhead seals
- Well testing well control aspects
- Drilling with casing
- HPHT completions, tubing movement
- Corrosion and flow control equipment
- Sand production
- Reservoir depletion

INSTRUCTOR

Steve Nas holds master degree in drilling engineering from the Robert Gordon University in Aberdeen and has accumulated over 40 years of drilling engineering experience. Steve started in 1977 as a mud logger with Geoservices before becoming a wellsite drilling engineer in 1980. In the mid 1990's became heavily involved in coiled tubing and underbalanced drilling and later into managed pressure drilling. He has been teaching well engineering since obtaining his master's degree in the late 1990's and has taught numerous courses at all levels including MSc students and developed a large number of training courses. Now working as an independent consultant he provides a number of well engineering related courses and offshore coaching on challenging wells.

ADVANCED CASING DESIGN (DRL 301)

PetroTeach offers the course in advanced casing design. This 5-day training course/workshop will focus on provide participants with a competency in casing design. The course addresses the engineering aspects of casing design based on first principles.

DESIGNED FOR

The course is designed for petroleum engineers with basic knowledge and experience in drilling engineering. The objective is to establish a foundation for drilling engineers to be able to participate in the well planning and well operation process and design.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The participants will learn and understand:

- Casing strengths such as axial strength yield, burst and collapse.
- Setting triaxial limits for casing and understanding combined loads.
- Material selection with regards to sour gasses and partial pressures.
- Thermal loading, annular pressure build-up and corrosion effects.
- Conductor casing design for land, surface BOP's and subsea BOP's.
- Casing running operations, centralizer requirements and Drilling With Casing.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Apr	2490 €
Dubai	2 - 6 Mar	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

A full casing design project from an actual well is used during the course. Participants are taken step by step through the entire API casing design calculations. Load cases, couplings, thermal loading, material selection, and well control aspects of casing design. A large part of the course involves hand on exercises and Participants should have a calculator and a laptop computer with a spreadsheet program during the course. The course finishes with the operational aspects of running and cementing casing and introduces drilling with casing operations.

COURSE OUTLINE

Day 1: Introduction

- Introduction to Casing Design
- Manufacturing of Casing
- API Specifications of Casing
- Properties of Steel Tabulars
- Casing Design Standards
- Tensile strength, Burst, Yield, Collapse and Axial loads

Day 2: Pressures and Temperatures

- Hydrostatic Pressures
- Pore and Fracture Pressures
- Well Trajectories
- Casing Design Requirements
- Design of Surface Casing
- Couplings and Connectors

Day 3: Kick Tolerance and Material Selection

- Gas Pressures
- Kick Tolerance and Leak off Tests
- Design of Drilling Liner
- Design of Intermediate Casing
- Partial Pressures and Salt Loading
- Material Selection
- Combined Loads and Triaxial Design

Day 4: Annular Pressures, Buckling and Conductor Design

- Production Casing Design
- Annular Pressure build-up
- Casing Wear
- Casing Corrosion
- Buckling
- Conductor Design Land
- Conductor Design offshore surface BOP
- Conductor Design offshore subsea BOP

Day 5: Running Casing, Drilling with Casing

- Production Liner Design
- Blowout Considerations
- Running and Cementing Casing
- Expandable Casing
- Drilling with Casing

INSTRUCTOR

Steve Nas holds master degree in drilling engineering from the Robert Gordon University in Aberdeen and has accumulated over 40 years of drilling engineering experience. Steve started in 1977 as a mud logger with Geoservices before becoming a wellsite drilling engineer in 1980. In the mid 1990's became heavily involved in coiled tubing and underbalanced drilling and later into managed pressure drilling. He has been teaching well engineering since obtaining his master's degree in the late 1990's and has taught numerous courses at all levels including MSc students and developed a large number of training courses. Now working as an independent consultant he provides a number of well engineering related courses and offshore coaching on challenging wells.

ADVANCED AIR AND FOAM DRILLING (DRL 302)

PetroTeach offers three days course in advanced air and foam drilling. This 3-day training course will focus to provide an understanding of the design, operational requirements, techniques and challenges associated with air and foam drilling operations.

DESIGNED FOR

This course is intended for the disciplines listed below:

- Drilling Engineers
- Drilling Contractor Supervisory Personnel
- Service Providers
- Other Relevant Technical Operational Staff

COURSE LEVEL

- Advanced

LEARNING OBJECTIVES

The participants will learn and understand:

- Design criteria for air drilled wells.
- Operational aspects of air drilled wells.
- Design criteria for foam drilled wells.
- Operational aspects of foam & aerated fluid drilled wells.
- Rig up and operational aspects of air and foam drilling.
- Surface & down-hole equipment used for air and foam drilling.
- Well control aspects of air and foam drilled wells.
- Corrosion challenges and management for air and foam drilled wells.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	16 - 18 Feb	1740 €
Stavanger	22 - 24 Apr	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course is intended to provide operators and service providers with a structured understanding of the requirements, techniques and challenges for air, foam and aerated fluid drilling operations. The course provides the requirements for well design and for operational design of multiphase fluid drilling operations.

COURSE OUTLINE

Day 1: Introduction

- Introduction to Aerated Fluid Drilling
- History of Air and Foam Drilling
- Well Design
- Designing for Air Drilling
- Air Drilling Operations
- Designing for Foam Drilling
- Foam Drilling Operations
- Designing for Aerated fluids
- Aerated Drilling Operations

Day 2: Pressures and Temperatures

- Surface Equipment
- Compressors
- Boosters
- Mist Pumps
- Textsteam Pumps

Day 3: Kick Tolerance and Material Selection

- Air or Foam Drilling Project Specific Review
- Rotating Control Devices
- Blooie Lines
- Nitrogen Generators
- Mist Pumps
- Downhole Equipment
- Air Hammers
- Air Bits
- Floats
- Well Control
- Corrosion

INSTRUCTOR

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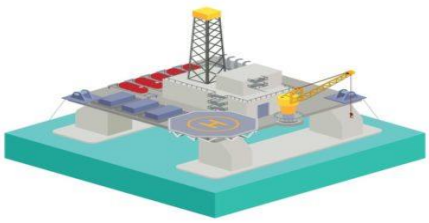
APPLIED DRILLING AND WELL ENGINEERING (DRL 303)



PetroTeach offers 10 days course in applied drilling and well engineering to provide well engineers with an advanced and practical insight into the well design and well construction process. This course approaches well construction as a design process. This course can be tailor made and delivered in 5 days with an intensive outline.

DESIGNED FOR

This course is intended for the disciplines listed below:

- Drilling Engineers and Service Providers
- Drilling Contractor Supervisory Personnel
- Other Relevant Technical and Operational Staff

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn and understand:

- Objectives and creating a basis of design for each activity before working the details of their well program.
- Participants are made aware of the complexities and interaction between various components of well design.
- Well design aspects.
- Operational management, the risk management and mitigation aspects of well design and well operations.
- Participants can go back to their operational roles after the course with a better understanding of the well design process.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 5 And 8 - 12 Jun	4980 €
London	2 - 6 And 9 - 13 Feb	9980 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course is scheduled around an actual well and it is combined with practical examples to enhance the theoretical and practical knowledge of the candidates. The course addresses all aspects of well design and well operations including aspects that are generally conducted by contractors. Each of the participants will work and create a detailed drilling program, which will include costs, timings, risk assessments and contingency planning. Once the well design is completed, the program will be used to review operational management and optimization opportunities.

COURSE OUTLINE

Day 1: Introduction to Well Planning
- Well types, planning and risk analysis
- Estimating drilling duration and well costs

Day 1: Formation Pressures and Temp.
- Pore pressures and fracture pressures
- Temperatures and geomechanics
- Ballooning/wellbore breathing

Day 3: Directional Planning
- Well trajectory directional planning
- Torque and drag
- Tortuosity
- Anti-Collision

Day 4: Casing Design
- Casing and conductor design
- Casing running operations

Day 5: Cementing
- Cementing: Slurries, additives, testing and placement
- Managing cementing operations

Day 6: Drillstring Design
- Drillstring design and failures
- Bits and bit selection
- Classification system for bits
- Grading bits

Day 7: Drilling Fluids
- Drilling fluids
- Solid control, hydraulics and rheology
- Hydraulic optimization
- Hole cleaning
- Surge and swab

Day 8: Drilling Challenges
- Drilling challenges
- Down hole and surface equipment failures
- Stuck pipe and Losses
- Drillstring failures hole collapse

Day 9: Well Control
- Well control and barriers
- Kick tolerance and detection
- Secondary well control
- Kick circulation
- Non-conventional well control
- Bullheading
- Losses, kicks and plugged equipment
- Tertiary well control
- Blowouts and relief wells

Day 10: Well Control
- Managing drilling operations
- Drilling economics and contracts
- Rig selection
- Drilling optimization
- Risk management/ Risk analysis
- Contingency planning

INSTRUCTOR

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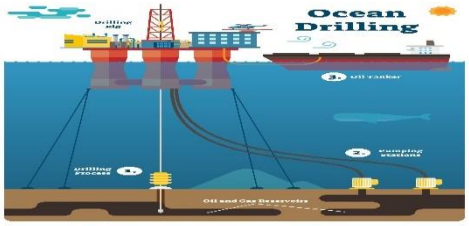
DEEPWATER DRILLING OPERATIONS (DRL 304)



PetroTeach offers the 5 days course in deepwater drilling operations. This course approaches well construction as a design process. The course is specifically designed to provide an understanding of the challenges associated with the design and construction of deepwater wells.

DESIGNED FOR

Participants should have a solid understanding of conventional drilling operations and at least 3 to 5 years of experience in drilling and rig operations. General understanding of hydrostatic pressures and the associated calculation methods is an advantage. The course is designed for Drilling and Completion Engineers, Drilling Contractor Supervisory Personnel, Service Providers for Deepwater Wells and Other Relevant Operational Staff.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn and understand:

- The challenges associated with deepwater drilling and completion operations.
- Overview of the Standards, procedures and practices.
- Geological and geophysical aspects of deepwater prospects.
- Drilling rig and equipment for drilling deepwater wells.
- Drilling challenges and practices for deepwater well construction.
- Overview of modern technologies.
- Testing and completion requirements.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Sep	2490 €
Aberdeen	19 - 23 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course covers not only theory, technicalities and practicalities of designing, drilling and completing deepwater wells, but it also covers real examples and exercises. Understand the design criteria for air drilled wells. The course starts with the history of deepwater drilling, then look at the geological aspects of deepwater drilling operations and the challenges associated. With the fundamentals covered the course then moves to cover the aspects associated with deepwater well design. This is followed by the preparations for drilling deepwater wells where metocean, rig and station keeping challenges are addressed.

COURSE OUTLINE

Day 1:

- Well design considerations
- Metocean and currents
- Rig selection
- Station keeping
- Open water operations
- Conductors and surface casing
- Subsea wellhead systems and casing
- Deepwater cementing

Day 2:

- Well design considerations
- Metocean and currents
- Rig selection
- Station keeping
- Open water operations
- Conductors and surface casing
- Subsea wellhead systems and casing
- Deepwater cementing

Day 3:

- BOP systems
- Drilling riser systems
- Drilling equipment for deepwater

Day 4:

- Deepwater well control
- Deepwater drilling challenges
- Fluids and mud systems
- Subsalt operations
- Input to numerical simulator

Exercise: Black oil model properties and fluid characterization

Day 5:

- Dual gradient drilling, MPD
- Deepwater completions
- Deepwater operations management
- Deepwater well intervention

INSTRUCTOR

Steve Nas holds master degree in drilling engineering from the Robert Gordon University in Aberdeen and has accumulated over 40 years of drilling engineering experience. Steve started in 1977 as a mud logger with Geoservices before becoming a wellsite drilling engineer in 1980. In the mid 1990's became heavily involved in coiled tubing and underbalanced drilling and later into managed pressure drilling. He has been teaching well engineering since obtaining his master's degree in the late 1990's and has taught numerous courses at all levels including MSc students and developed a large number of training courses. Now working as an independent consultant he provides a number of well engineering related courses and offshore coaching on challenging wells.

DRILLSTRING DESIGN (DRL 305)

PetroTeach offers the 4 days course in drillstring design. The course is intended to provide drilling and well engineers with the competency to design a drillstring for a well. Using both vertical and directional well profiles, participants are taken through the design of a drillstring for various scenarios using current design standards.

DESIGNED FOR

Participants should have a solid understanding of conventional drilling operations and at least 3 to 5 years of experience in drilling and rig operations. General understanding of hydrostatic pressures and the associated calculation methods is an advantage. The course is designed for Drilling and Completion Engineers, Drilling Contractor Supervisory Personnel, Service Providers for Deepwater Wells and Other Relevant Operational Staff.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will:

- Understand tubular properties.
- Know the classification of the major drillstring components.
- Know the design factors for drillstring.
- Understand the components and their placement.
- Understand Torque and Drag, and Hydraulics.
- Understand buckling, fatigue, drillstring dynamics and failures.
- Understand the requirements and processes for drillstring inspections.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	5 - 8 Oct	1990 €
Aberdeen	3 - 6 Nov	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The drillstring design is completed from first principles and using spreadsheets so that participants gain an understanding in the design principles. The course starts with the tubular properties and then moves through the various components to allow a full drillstring design to be completed. The various mechanical aspects of a string such as vibrations, torque and drag and wear are covered to ensure that these are considered for the design of the string. The final day of the course addresses drillstring inspection.

COURSE OUTLINE

Day 1:

- Introduction and drillstring history
- Properties of pipe
- Tubular mechanical and
- Classifications and Identification
- Buoyancy

Day 2:

- Designing the drillstring
- Drill string components

Day 3:

- Bottom hole assemblies
- Torque & drag
- Buckling
- Drillstring failure
- Drillstring fatigue
- Slip crushing
- Drillstring dynamics
- Wear and casing wear

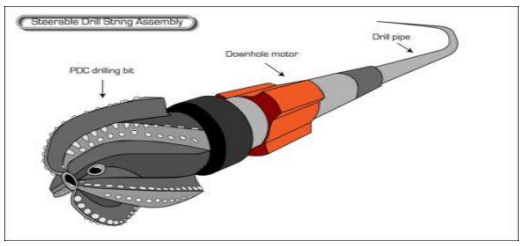
Day 4:

- Drillstring Care and Inspection
- Standards
- Thread compounds
- Drill string inspection

INSTRUCTOR

Steve Nas holds master degree in drilling engineering from the Robert Gordon University in Aberdeen and has accumulated over 40 years of drilling engineering experience. Steve started in 1977 as a mud logger with Geoservices before becoming a wellsite drilling engineer in 1980. In the mid 1990's became heavily involved in coiled tubing and underbalanced drilling and later into managed pressure drilling. He has been teaching well engineering since obtaining his master's degree in the late 1990's and has taught numerous courses at all levels including MSc students and developed a large number of training courses. Now working as an independent consultant he provides a number of well engineering related courses and offshore coaching on challenging wells.

HPHT WELL DESIGN AND OPERATIONS (DRL 306)



PetroTeach offers the scenario-based course to provide knowledge of high-pressure and high-temperature (HPHT) well design, drilling and completion operations to drilling and completion engineers. The course is specifically designed to provide an understanding of the challenges associated with the design and construction of HPHT wells.

DESIGNED FOR

This course is intended for Drilling Engineers, Completion Engineers, service providers that are about to be exposed to HPHT drilling operations and are trying to better understand the complexities.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn and understand:

- Narrow drilling margins and effects on Kick tolerance.
- The impact of both high pressures and temperatures on the observed behaviour of the well.
- The impact of temperatures and pressures on primary and secondary well barriers.
- Well design requirements for HPHT.
- Operational planning and operational challenges associated with HPHT Rig equipment requirements.
- Well delivery, fingerprinting, well bore breathing, high-reliability drilling practices

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Sep	2490 €
Dubai	14 - 18 Dec	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course starts with an introduction to the HPHT environment introduces the geological aspects of an HPHT environment and presents a detailed look at the behaviors of the various components of a well with elevated pressures and temperatures. The second day starts with a look at well design standards, well design for HPHT wells. The third day starts with rig requirements for HPHT operations. This part of the course presents the surface equipment requirements for HPHT drilling. In the fourth day the operational aspects of drilling an HPHT well are presented to the candidates. The last day of the course covers well testing and completion operations on HPHT wells.

COURSE OUTLINE

Day 1: Introduction to HPHT Well

- History of HPHT drilling operations
- Behavior of gasses, liquids, metals and elastomers with elevated pressures and temperature

Day 2: Well Design

- Applicable well design, drilling standards and procedures
- Pore & fracture pressures
- Casing design and their connections
- Well control aspects & casing design
- Primary/Remedial cementing
- Drilling fluids
- HPHT drillstring design
- HPHT data Collection
- Contingency planning

Day 3: Directional Planning

- Rig and equipment requirements
- BOP specifications and test requirements
- HPHT choke manifolds
- Mud gas separator sizing
- Temperature safety aspects
- Mud coolers and mud testing requirements
- Hydraulics and ECD
- Barite mixing requirements
- Solids control and Barite sag
- Pit discipline and finger printing the well
- Fluid compressibility & density
- Gas solubility

Day 4: Cementing

- Well control for HPHT
- Well control operations
- Ballooning, wellbore breathing and super charging
- Temperature monitoring
- Drilling and tripping operations
- Data collection and MWD/LWD

Day 5: Running Casing, Drilling with Casing

- Well testing practices
- Material selection and metallurgy for tubing and wellheads
- Wellhead seals
- Well testing and well control aspects
- Drilling with casing
- HPHT completions, tubing movement
- Corrosion and flow control
- Sand production

INSTRUCTOR

Steve Nas holds master degree in drilling engineering from the Robert Gordon University in Aberdeen and has accumulated over 40 years of drilling engineering experience. Steve started in 1977 as a mud logger with Geoservices before becoming a wellsite drilling engineer in 1980. In the mid 1990's became heavily involved in coiled tubing and underbalanced drilling and later into managed pressure drilling. He has been teaching well engineering since obtaining his master's degree in the late 1990's and has taught numerous courses at all levels including MSc students and developed a large number of training courses. Now working as an independent consultant he provides a number of well engineering related courses and offshore coaching on challenging wells.

MANAGED PRESSURE DRILLING (DRL 307)

PetroTeach offers three days course in the managed pressure drilling. This 3-day training course will focus the managed pressure drilling by provide an understanding of the design, operational requirements, techniques and challenges associated. The course covers all the MDP methods, including constant bottom hole pressure and mud cap drilling operations it also includes land, offshore and deepwater MPD.

DESIGNED FOR

This course is intended for the disciplines listed below, as well as anyone with a specific interest in the topic:

- Drilling Engineers
- Drilling Contractor Supervisory
- Personnel Service Providers
- Other Relevant Technical and Operational Staff

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

Objectives of this course are to provide the participants with a good understanding of the various aspects of managed pressure drilling. The participants will gain knowledge of planning MPD operations and gain knowledge of the equipment and the equipment requirements for both onshore, offshore and deepwater MPD operations.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 9 Oct	1740 €
Dubai	21 - 23 Sep	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course provides participants with an understanding of managed pressure drilling techniques and equipment. The course starts with the design requirements for an MPD operation. MPD equipment is presented in detail and the design aspects of the well are presented. The course commences with the history and the various managed pressure drilling techniques that are applied. The pressure aspects in a well are presented ensuring a good understanding of the pressures that are managed with MPD operations. The second day of the course introduces a detailed overview of the variations of managed pressure drilling. The well design aspects of managed pressure drilling are presented. This last day of the course starts with a detailed review at the MPD surface equipment both for land, offshore and deepwater drilling operations. The participants are exposed to MPD operations from initiating MPD to drilling, tripping, running casing and cementing operations. The well control aspects of MPD are presented.

COURSE OUTLINE

Day 1: Introduction

- Welcome and Introductions
- What is Managed Pressure Drilling
- History of MPD
- Wellbore Pressures
- Formation Pressures
- Pressure Management Exercise: Pressure calculations

Day 2: MPD Variants

- Underbalanced Drilling
- Constant Bottom Hole Drilling
- Mud Cap Drilling
- Continues Circulation Systems
- Dual gradient Drilling
- Deepwater MPD
- MPD Well Design

Exercise: Well design calculations

Day 3: Equipment and Operations

- MPD Equipment
- Surface Equipment
- Down Hole Equipment
- MPD Operations
- Finger Printing
- Tripping
- Running Casing and Liners
- MPD Cementing
- MPD Well Control Operations

Exercise: Well control aspects

INSTRUCTOR

Steve Nas holds master degree in drilling engineering from the Robert Gordon University in Aberdeen and has accumulated over 40 years of drilling engineering experience. Steve started in 1977 as a mud logger with Geoservices before becoming a wellsite drilling engineer in 1980. In the mid 1990's became heavily involved in coiled tubing and underbalanced drilling and later into managed pressure drilling. He has been teaching well engineering since obtaining his master's degree in the late 1990's and has taught numerous courses at all levels including MSc students and developed a large number of training courses. Now working as an independent consultant he provides a number of well engineering related courses and offshore coaching on challenging wells.

STUCK PIPE PREVENTION (DRL 308)

This 2-day training course by PetroTeach will focus on the techniques for eliminating or significantly reducing stuck pipe incidents as well as steps to minimize a stuck pipe event and get free quickly. Stuck pipe prevention training emphasizes good communication, "team thinking" and quick action in the problem-solving process of preventing and freeing stuck pipe. Where possible the course uses the organization's data, and the course can be customized.

DESIGNED FOR

This course is intended for the disciplines listed below, as well as anyone with a specific interest in the topic:

- Wellsite Drilling Staff
- Drilling Contractor Supervisory Personnel
- Service Providers Staff such Directional Drillers
- Other Relevant Technical and Operational Staff

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will:

- Learn the preventative actions to avoid Stuck Pipe incidents.
- Know the first actions for freeing pipe.
- Learn the parameters which affects Hole Cleaning.
- Have a better understanding of Wellbore stability.
- Have a better understanding of how a drilling jars works.
- Review main considerations when setting a cementing plug.
- Minimize the occurrence/ frequency and cost impact of Stuck Pipe Incidents.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	13 - 14 Aug	1070 €
Dubai	9 - 10 Jul	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course starts with defining the term stuck pipe. It provides the participants with the three major mechanisms and the three minor mechanisms of stuck pipe. The participants are then presented with the issues related to hole stability, wellbore geometry, hole cleaning and wellbore pressure management to understand the major causes of stuck pipe. Day two the stuck pipe avoidance and recovery is presented including how to recognize and interpret the signs of stuck pipe. First responses are presented together with the placement of the jars, free point determination, fishing tools and challenges and the course is wrapped up with information on sidetracking of the well.

COURSE OUTLINE

Day 1:

- Welcome and Introductions
- Welcome and Introduction
- Stuck Pipe Statistic
- Major Stuck Pipe Mechanism
  - Solids induced pack off
  - Mechanical and wellbore geometry
  - Differential sticking
- Minor Stuck Pipe Mechanisms
  - Partially set cement
  - Distorted casing
  - Junk
- Hole Cleaning and Solids
- Vertical wells/ directional wells
- Wellbore Stability and Geomechanics
- Petroleum Rock Properties
- Hole Geometry
- Differential Sticking
  - Pressure Management
  - Pore Pressures

Day 2:

- Rig Sizing
- Directional Planning
- Tripping and Back Remaining
- Surge and Swab
- Hole Condition Monitoring
  - Surface
  - Downhole
  - Real time
- Roles and Responsibilities
- Freeing the Pipe First Responses
- Jar Placement
- Free Point and Back-off
- Fishing Tools and Techniques
- Sidetracking

INSTRUCTOR

Steve Nas holds master degree in drilling engineering from the Robert Gordon University in Aberdeen and has accumulated over 40 years of drilling engineering experience. Steve started in 1977 as a mud logger with Geoservices before becoming a wellsite drilling engineer in 1980. In the mid 1990's became heavily involved in coiled tubing and underbalanced drilling and later into managed pressure drilling. He has been teaching well engineering since obtaining his master's degree in the late 1990's and has taught numerous courses at all levels including MSc students and developed a large number of training courses. Now working as an independent consultant he provides a number of well engineering related courses and offshore coaching on challenging wells.

FUNDAMENTAL PRINCIPLES OF PERMANENT PLUG AND ABANDONMENT (P&A) OF WELLS (DRL 309)

Every drilled well has an end, the destiny of wells is permanent Plug and Abandonment (P&A). Permanent plug and abandonment means restoring the cap rock or its functionality. To achieve the goals of permanent P&A, one should know the reason for P&A and scope of the work. The industry has shown the interest in game changing technologies, which are based on scientific and engineering efforts.

DESIGNED FOR

The course is designed for Petroleum Engineers, Drilling Engineers, Geologists, Reservoir Engineers, Management, Service Providers and University Educators.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- The philosophy of P&A.
- Concerns and opportunities.
- Barrier placement techniques.
- Verification and qualification of barriers.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	19 - 20 Feb	1070 €
Online	9 - 10 Jul	1070 €
Stavanger	22 - 23 Jan	2490 €
Oslo	27 - 28 Aug	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The quality and safety are the prime for both operating companies and the regulatory authorities. The aim of this course is to provide the skills needed to understand the fundamental principles of P&A such as facts about P&A, the rules and regulations, well abandonment phases, barrier verification methods, alternative barrier materials, new technologies, challenges and opportunities, and considering P&A during well construction.

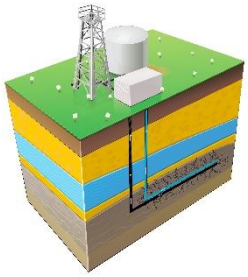
COURSE OUTLINE

- The philosophy of P & A
- Concerns and opportunities
- Barrier placement techniques
- Verification and qualification of barriers

INSTRUCTOR

Dr. Mahmoud Khalifeh is Associate Professor at University of Stavanger (UiS). He hold a PhD in plug and abandonment of wells with a focus on materials optimized for permanent P&A. Dr. Khalifeh has developed the permanent P&A (Plug and Abandonment) subject (MSc level) at UiS. He has published several articles in scientific journals and conferences. Dr. Khalifeh represents UiS as observer at Norwegian Plug and Abandonment Forum (PAF) since 2012.

ACID STIMULATION TECHNIQUES (DRL 310)



Acid stimulation is the treatment of a reservoir formation with a fluid containing a reactive acid. In sandstone and carbonate reservoirs, the matrix acidizing increase the formation permeability to enhance the productivity. This course tries to present different aspects this important process in petroleum engineering.

DESIGNED FOR

Drilling, completion, workover and production engineers and managers. Reservoir and geology engineers, field maintenance supervisors and operators. Service companies and equipment manufacturing engineers. Safety engineers and personnel selected by their companies for attending special training courses.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- To provide reasonable procedures and guidelines.
- To offer cautions suggested by particular formation compositions and reservoir conditions.
- To learn about the many processes involved in acid stimulation operations.
- To learn about acidizing equipment.
- How to plan and execute an acid job.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Sep	2490 €
Stavanger	5 - 9 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course is designed to help perform acidizing on a well candidate in a logical step-by-step process and then select and execute an appropriate chemical treatment for the oil/ gas well. The subject matter is practical in intent and avoids the more complicated acid reaction chemistries. Effective acidizing is guided by practical limits in volumes and types of acid and procedures so as to achieve an optimum removal of the formation damage around the wellbore.

COURSE OUTLINE

Day 1:

- Basic Acidizing Treatments
- Purposes/Applications
- Effects of Acidizing
- Production History Plots
- Offset Well Comparison
- Pressure Buildup Tests
- Formation Damage Diagnosis

Day 2:

- Formation Response to Acid
- Crude-Oil Incompatibility
- Hydrogen Sulfide
- Formation Matrix Properties
- Formation Mineralogy
- Methods of Controlling Precipitates
- Acid Treatment Design

Day 3:

- Acid Type and Concentration
- Retarded HF Acids
- Geochemical Models
- Acid Placement and Coverage
- Mechanical Techniques
- Opposed Cup Packer
- Squeeze Packer
- Ball Sealers and particulates
- Viscous Acid
- Advances in Acid Diversion

Day 4:

- Acid Additives

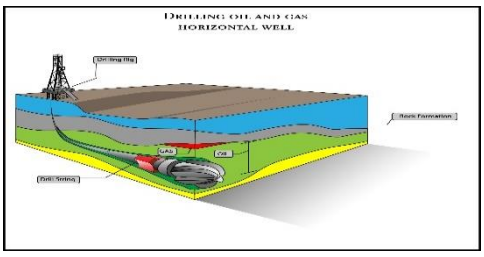
Day 5:

- Job Supervision
- Safety and Environment Protection
- Well Preparation
- Quality Control
- Injection-Rate Control
- Pressure Behavior During Acid Injection
- Spent Acid Production Control
- Produced Fluid Sampling
- Evaluation of Acid Treatments
- Continuous Improvement

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer. Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

ADVANCED SLICKLINE TRAINING (DRL 311)



Slickline is a single smooth wire being applied to run a variety of tools down into the wellbore for different targets. This 5-day course emphasizes the role of engineers and field operators in planning and executing Slickline Operations to maintain and increase field production and thus add to the profitability and recoverable well reserves.

DESIGNED FOR

To provide an in-depth knowledge of the theoretical and practical aspects of Slickline operations. At the end of the course delegates will learn about the many processes involved in Slickline operations, about Slickline equipment, how to plan and execute a Slickline operation.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Reasonable procedures and guidelines.
- In-depth knowledge of the theoretical and practical aspects of Slickline operations.
- About the many processes involved in Slickline operations.
- About Slickline surface and downhole equipment.
- How to plan and execute a Slickline operation.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	5 - 9 Oct	2490 €
Oslo	18 - 22 May	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course emphasizes the significance of the team concept as a factor in optimizing operations success. The course is highlighted with open discussions and problem solving shared by the instructor and participants.

COURSE OUTLINE

Day 1:

- Wellbore Configurations and Wellheads
- Safety
- Basic Slickline unit design
- Wireline properties
- Wireline terminations
- Surface auxiliary equipment
- Pressure control

Day 2:

- Toolstring components
- Standard Service tools
- Swaging tool
- Tubing end locator
- Pulling tools
- Lock mandrels

Day 3:

- Plugs and test tools
- Circulation devices
- Safety valves
- Side pocket mandrels and kickover tools
- Pressure and temperature gauges

Day 4:

- Remedial wireline operations
- Perforating
- Sand bailing and swabbing
- Grease injection systems
- Production logging (memory) tools

Day 5:

- Fishing operations and tools

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer. Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

CASING AND CEMENTING (DRL 312)

The course will introduce basic casing and cement job processes including design and related calculations. The course will include practical exercises and evaluation of knowledge gained.

DESIGNED FOR

This short course is intended for field and office personnel responsible for Drilling and Completion activities and their management. Drilling Superintendents, Drilling Engineers, Toolpushers, Drillers, and Logistics Personnel.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

To provide attendees with a working knowledge of casing design and cementing procedures. Learning the practical application of different types of cement and use of additives to produce specific cement properties. Learning how to evaluate the success or failure of a cement job.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	17 - 20 Feb	1990 €
Paris	3 - 6 Nov	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The instructor will discuss about casing design, casing handling equipment and running procedures, casing hardware/tools used for cementing, cementing materials and additives, cement Rheology, primary cementing, remedial/ Squeeze cementing, plug back/ abandonment cementing, liner applications and liner cementing, cement surface equipment and cement job evaluation.

COURSE OUTLINE

Day 1:

- Casing design
- Casing handling equipment and running procedures
- Wireline terminations
- Surface auxiliary equipment
- Running speed

Day 2:

- Cementing materials and additives
- Cement Rheology

Day 3:

- Primary cementing
- Remedial/Squeeze cementing
- Plug back/abandonment cementing
- Job procedures

Day 4:

- Liner applications and liner cementing
- Cement surface equipment
- Cement job evaluation

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer. Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

COILED TUBING AND ITS APPLICATIONS (DRL 313)

This five-day training course covers conventional CT workover and completion application including CT drilling technology and coiled-tubing drilling hydraulics.

DESIGNED FOR

Drilling, completion, workover, production engineers and their managers. Reservoir and geology engineers, field maintenance supervisors and operators. Service companies and equipment manufacturing engineers. Safety engineers and personnel selected by their companies for attending special training courses.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

To provide an in-depth knowledge of the theoretical and practical aspects of CT operations. At the end of the course delegates will learn about the many processes involved in CT operations, about CT system components and how to plan and execute CT wellsite operations. Emergency field operation problems and their solutions will also be discussed.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Sep	2490 €
Amsterdam	9 - 13 Feb	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

It presents coiled tubing (CT) as a tool for workover, drilling, and completion services. It provides an overview of the properties of CT (mechanical performance of CT, including working limits, buckling, and fatigue), its manufacture, the surface equipment utilized for deployment, and subsurface tools for CT applications.

COURSE OUTLINE

Day 1:
- The CT manufacturing process.
- The API recommended practice involving manufacturing, storage, transportation, installation, care, maintenance, inspection and repair of CT.

Day 2:
- Plastic deformation
- Monitoring CT life
- CT life prediction

Day 3:
- CT unit components
  - Tubing reel
  - Power pack
  - Control cabin
  - Injector head
- BOP system and well control

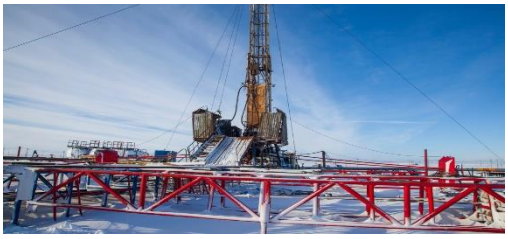
Day 4:
- CT applications
  - Pumping applications
  - Mechanical applications
- CT hydraulics

Day 5:
- CT emergency situations and solution procedures

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer. Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

DRILLING ENGINEERING FOR NON-DRILLING ENGINEERS (DRL 314)



This short course is intended for participants in the Oil and Gas industry seeking basic knowledge and understanding of drilling.

DESIGNED FOR

This short course is in tended for personnel with little or no drilling background, knowledge or experience. It is a basic introductory course designed to expose and introduce interested parties to drilling engineering concepts.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

- To introduce participants to basic concepts, theories, principles of drilling
- Expose participants to the various drilling equipment onshore, offshore and rig setup
- Introduction to the company personnel involved in drilling
- Introduction to the history of drilling, drilling terminologies and drilling methodologies
- Explain the phases of drilling
- Show participants the basic concept of drilling operation and process
- Present and explain the basic calculations in drilling
- Introduce participants to major consideration such as well control
- Identify potential drilling problems

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	25 - 27 Jun	1740 €
London	1 - 3 Apr	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Participants would be introduced to the fundamental concepts and principles of drilling, the process and the equipment. Basic calculations of drilling are covered in this course as well. Case studies will be presented together with videos on the processes involved.

COURSE OUTLINE

Day 1:

- Introduction, Terminology, Drilling Context
- Essentials of Geology

VIDEO-1: Origins of Petroleum

- Drilling Rigs & Drilling Systems

VIDEO-2: Drilling Rigs

- Drilling Costs

QUIZ -1: Test your knowledge on today's lecture

Day 2:

- Drilling Fluids & Drilling hydraulics

EXERCISE: Determine hydrostatic pressure

CASE STUDY: Oil Base Mud

- Abnormal Pressures, Kicks & Kick Control

EXERCISE: Kick control example

- Casing Design
- Cementing & Cement Job Design

QUIZ-2: Test your knowledge on today's lectures

Day 3:

- Drilling Costs
- Directional & Horizontal Drilling

VIDEO-4: Directional & Horizontal Drilling

- Well Logging & Completions
- Drilling Problems

VIDEO-5: Managed Pressure Drilling

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer. Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

DRILLING OPTIMIZATION (DRL 315)

This course is intended to train senior engineers in the identification, application and implementation of drilling optimization techniques. The intent is that participants in this class should satisfy some of the requirements for Well Engineering, Drilling Fluid Engineering and Well Construction Engineering.

DESIGNED FOR

This course is intended to train senior engineers in the identification, application and implementation of drilling optimization techniques. The intent is that participants in this class should satisfy some of the requirements for Well Engineering, Drilling Fluid Engineering and Well Construction Engineering.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of the top-most level content of the course are:

- Define concept of optimization.
- Overview of statistical analysis and risk control.
- Identification of Key Performance Indicators (KPI).
- Technical limits and quantum change in limits.
- Real time management of well construction performance.
- Optimization Elements.
- Software tools.
- Task analysis.
- Using real data to Optimize Drilling.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	9 - 13 Nov	2490 €
Aberdeen	3 - 7 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course presents initially presents some basic concepts regarding drilling and effective parameters during this process. Then, required mathematical concepts are taught. Next, it is attempted to elaborate how these tools can be tailored for optimization process of drilling. Finally, a real case is investigated.

COURSE OUTLINE

Day 1:

- Define Concept
- Compare to other goals and objectives of well drilling and construction
- Overview of various areas where we have control over the well construction process
- Overview of various areas where we do not have control
- Overview of statistical analysis
- Theory of risk, elements, control methods, measurement or evaluation of risk

Day 2:

- Identification of Key Performance Indicators (KPI)
- Common KPI
- Benchmarking
- Technical limits and quantum change in limits

Day 3:

- Real time management of well construction performance
- Typical drilling plan prior to optimization
- Discussion of this typical drilling plan
- Optimization Elements

Day 4:

- Optimization Elements
- Software tools
- Task analysis

Day 5:

- Workshop using real data provided by client and (fictional) well proposal

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer. Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

E-LINE OPERATIONS CASED HOLE FOR COMPLETION OPERATION (DRL 316)

This 5-day course emphasizes the role of engineers and field operators in planning and executing E-line Operations in Cased Holes for completion operations, to maintain and increase field production and thus add to the profitability and recoverable well reserves.

DESIGNED FOR

Drilling, completion, workover, production engineers and their managers. Reservoir and geology engineers, field maintenance supervisors and operators. Service companies and equipment manufacturing engineers. Safety engineers and personnel selected by their companies for attending special training courses.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

To provide an in-depth knowledge of the theoretical and practical aspects of E-line operations. At the end of the course delegates will learn about the many processes involved in Eline operations, about E-line equipment, and how to plan and execute an E-line operation.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	19 - 23 Oct	2490 €
Istanbul	9 - 13 Mar	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course emphasizes the significance of the team concept as a factor in optimizing operations success. The course is highlighted with open discussions and problem solving shared by the instructor and participants. By the end of this course, attendees will have an understanding of the industries advanced echnologies in the field of designing and executing E-line jobs in their respective operations. They will have knowledge of selecting the appropriate tools and methods for the particular operation and perform the task in a safe and efficient manner.

COURSE OUTLINE

Day 1:

- Field Units
- Wireline
- Data acquisition/delivery
- Depth measurement
- Pressure Control

Day 2:

- Petroleum Geology
- Cased Hole formation resistivity
- Nuclear Measurements
- Gamma Ray
- CH formation resistivity
- Reservoir saturation
- CH Dynamics tester

Day 3:

- Cement evaluation
- Cement bonding
- Corrosion monitoring
- Production logging

Day 4:

- Perforating
- Addressable-Switch firing systems
- Oriented perforating
- Through-tubing positioning devices
- Anchor tools
- Explosives
- Gun systems and charges
- Casing and tubing cutters

Day 5:

- Plugs and packers
- Setting tools
- Tractors Free-Point indicator
- Electromagnetic retrieval tool

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer. Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

STUCK PIPE CAUSES, PREVENTION, AND REMEDIATION (DRL 317)

During drilling operations, a pipe can be stuck. It happen when it cannot be freed from the wellbore without destroying the pipe, and without exceeding the drilling rig's pulling load. This 5-day course was designed to explain this problem and the plan can be deployed to solve it.

DESIGNED FOR

Drillers, Toolpushers, Drilling Supervisors, Drilling Engineers, Drilling Superintendents, Mud Loggers and all Drilling Team Members.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

Stuck pipe is one of the most expensive problems (NPT) that can occur during a drilling operation. Prevention of stuck pipe is far more economical than even the best freeing procedures. When prevention fails, a drilling professional should be able to select the most efficient remediation. Understanding and anticipating drilling problems, their causes, and planning solutions are essential.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Mar	2490 €
Stavanger	2 - 6 Jul	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course is designed for comprehensive coverage of stuck pipe problems and resolutions. Initially, main reasons behind the stuck pipe will be discussed. Then, some ways to prevent this problem will be stated. Next, fishing operation will be elaborated. Finally, hole cleaning process will be explained.

COURSE OUTLINE

- Team building
- Communication
- The problem of stuck pipe
- General stuck pipe prevention
- Bottom hole assemblies
- Tripping
- Drilling
- Warning signs of stuck pipe
- Hole cleaning procedures
- Mud properties
- The causes of stuck pipe
- Predicting stuck pipe
- Wellbore stability
- Freeing stuck pipe and logging tools
- Field Studies
- Economics of stuck pipe

Day 1:

- Causes of stuck pipe.
- Warning signs of sticking.
- Rig measures to free stuck pipe

Day 2:

- Field study examining stuck pipe incidents.
- Economic methods to avoid and/or free stuck pipe

Day 3:

- Fishing operations for drillstring and wireline.
- Fishing economics.

Day 4:

- Hole cleaning techniques.
- Tripping and backreaming.

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer. Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

WORKOVER AND COMPLETIONS, WELL INTERVENTION (DRL 318)

This 3-day course emphasizes the role of engineers and field operators in planning and executing the Intervention Operations to maintain and increase field production and thus add to the profitability and recoverable reserves.

DESIGNED FOR

Drilling, Intervention, completion and production engineers and managers, reservoir and geology engineers, field maintenance supervisors and operators, Service companies and equipment manufacturing engineers. Safety engineers and personnel selected by their companies for attending special training courses.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

- Workover and Completion Methodology
- Well Problem, Analysis and Control
- Cement Bond Logs
- Perforating
- Fracture Gradients
- Cement Squeezing
- Acidizing
- Rigless Operations
- Coil Tubing
- Fishing Operations
- Sand and Completion Management
- Production Casing & Tubing Design
- Artificial Lift

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	22 - 23 Apr	1070 €
Dubai	27 - 28 Jan	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course emphasizes the significance of the team concept as a factor in optimizing operations success. The course is highlighted with open discussions and problem solving shared by the instructor and participants. Topics covered include safety regulations, operation schedules, procedures and sequences, equipment to be used, service companies' role, contingency plans and emergency procedures. By the end of this course, attendees will have an understanding of the industry's advanced technologies in field of designing and executing Intervention jobs in their respective operations.

COURSE OUTLINE

Day 1:

- Workover and Completion Methodology
- Well Problem and Analysis
- Well Control
- Cement Bond Logs
- Perforating
- Fracture Gradient
- Sand Management
- Cement Squeezing
- Acidizing
- Rigless Operations
- Coil Tubing
- Fishing Operations
- Sand and Completion Management
- Production Casing & Tubing Design
- Artificial Lift

Day 2:

- Perforating
- Oriented perforating
  - Through-tubing positioning devices
  - Anchor tools
  - Explosives
  - Gun systems and charges
  - Casing and tubing cutters

Day 3:

- Plugs and packers
  - Setting tools
  - Gauge ring and junk basket
  - Casing patch
  - Plug back tool
  - Tractors Free-Point indicator
  - Electromagnetic retrieval tool

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer. Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

ADVANCED CASING DESIGN AND TUBING (DRL 319)

This course covers the relevant subjects required to understand the structural mechanics of down hole tubular. Material aspects, connection selection, performance properties, load cases, design factors, and buckling are just a few of the many topics that are covered The course is designed to concentrate on the fundamentals, takes delegates through the key drivers behind casing design for exploration, appraisal and development wells and their associated risks, challenges and solutions.

DESIGNED FOR

Drilling Supervisor, Site Drilling Engineers, Project Engineers, and Operation Engineers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will:

- Understand the main functions, characteristics of casing.
- Understand the geometric characteristics and properties of casing.
- Appreciate the requirements for casing seat selection.
- Conduct casing design calculations for different load cases.
- Understand how buckling affects casing design limitations.
- Understand how corrosion can reduce casing life/performance, recognize signs of corrosion.
- Design conductor, intermediate, drilling liners, and production casing strings
- Take biaxial and triaxial loading into account.
- Design for bending, point loading, ballooning, and buckling.
- Learn to perform a complete integrated procedure for designing oilfield tubulars

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	5 - 9 Oct	2490 €
Cairo	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

It introduces manufacture techniques, specifications, loading, design, and problems of casing strings. It helps attendants to understand casing techniques and the knowhow of the casing strings. It provides explanations and examples of all the aspects of oilfield tubular design. Both uniform and non-uniform loading is covered. Combination loading considerations are envisioned and design procedures are outlined and practiced. Design of tubulars for use in a corrosive environment is new addition. This course includes several examples for onshore and offshore wells, participants will get the optimum benefit from this course.

COURSE OUTLINE

Day 1:

- Casing profiles and drilling scenarios
- Onshore and offshore wells
- Casing types
- Liner, Design requirement
- UK Design and consideration Regulations (DCR)
- Selection of casing seats
- Drilling liner, Differential Sticking
- Casing and Relative Hole Sizes
- Tubular range lengths & color
- Stress-Strain Diagram, Heat Treatment

Day 2:

- Connections, API, Proprietary
- Tension, Compression, Collapse
- Internal Yields Pressure, Yield Strength
- Fundamental Design Principles
- Burst, Collapse, Triaxial, Buckling, Tension

Day 3:

- Casing Loading and Design Considerations
- Tubular Selection, Costs, Service Loads Cases
- Service Life Design Load Equations
- Calculation Procedures, Summary of Equations
- Burst, Collapse, Tubing
- Load Capacity Diagrams
- Load & Design Factor vs. Depth Triaxial Load Capacity
- Introduction to TDAS/ EXP
- The well Plan, Design/Analysis

Day 4:

- Special Design Condition
- Liner Buckling
- Compression and Burst
- String to String Load Transfers
- Kick Tolerance, Torque and Drag
- API Standards Overview
- Basic Handling and Running
- Thread Compounds

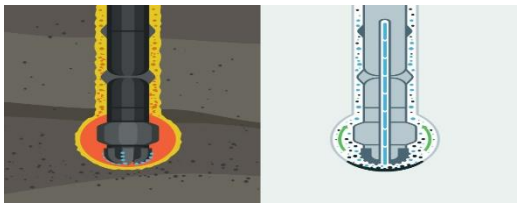
Day 5:

- Casing Design Mathematical Models
- Proprietary Models
- TDAS: Tubing Design Analysis System
- WEST: Wellbore Simulated Temperature
- ROAM: Torque and Drag
- MULTI: Multi string model

INSTRUCTOR

Fayez Makkar is a well-qualified Drilling Engineer with over 40 years' experience with Major Oil & Gas Companies. Experiences has been mostly in drilling area, from contractor to operator; working on various operations, workover, completion logging interpretation and design the completion, and drilling projects. Extensive experiences in directional and horizontal wells. Experience in all types of drilling operations including deep wells in both off shore and onshore oil and gas wells, H2S wells. Fayez. Makkar gained these very experiences from working with different nationalities in different countries and fields. Fayez Makkar has long experience as a Drilling freelancer instructor & curriculum provider for many international companies specially on the Middle East region.

CEMENTING TECHNOLOGIES (DRL 320)



Cementing is a fundamental element of effective well construction. By understanding cement chemistry, additive use and lab procedures, the participants will build a solid foundation to design and execute cement jobs. Mud removal and centralization will be covered sot that participants will be able to apply effective processes to ensure cement job success.

DESIGNED FOR

Drilling Supervisor, Site Drilling Engineers, Project Engineers, and Operation Engineers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

Course objectives includes:

- Perform primary cementing operations successfully.
- Conduct squeeze jobs and selection of squeeze tools for remedial job.
- Perform cement plug operations to improve overall job success.
- Interpret cement sheath evaluation logs.

At the end of this course participants will:

- Understand the critical parameters for any cementing operation.
- Select mud displacement rates for effective removal.
- Select the proper Additives based on Well Conditions.
- Read and perform Interpretation of Cement Bond Logs.
- Understand Special Cement Systems.
- Interpret cement sheath evaluation logs USIT, CBL, and VDL.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	5 - 9 Oct	2490 €
Doha	6 - 10 Jul	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 'Cementing Technologies' course covers the importance being placed on the cement sheath integrity during the life of the well, requiring additional mechanical properties of the set cement are obtained other than the compressive strength. Special purpose cements are discussed in a way so that it will be apparent when they should and when they should not be used as well as how they can be used to solve challenges encountered in complex and extreme well environments.

COURSE OUTLINE

Day 1:

- One/Two stage cement jobs
- Liner cementing
- Squeeze cementing
- Cement head and wiper plugs
- Calculator for all parameters of the cement job
- Pressures during and at end of displacement

Day 2:

- Buoyancy effect on casing
- Relevant factors
- Cement job planning
- Cement chemistry
- Compressive strength and permeability
- Strength retrogression
- Thixotropic cement slurries
- The importance of BHCT and BHST
- Mud removal and the effect of mud contamination on compressive strength
- Gas migration

Day 3:

- Lost circulation
- Cementing horizontal wells
- Cement laboratory equipment
- Rheology
- Flow modules and mud removal
- Spaces and washes
- Cement placement
- Engineered particle size cements
- Salt cementing
- Thixotropic cement systems
- Light weight/Foam/Permafrost cements

Day 4:

- Cement quality evaluation logs
- Overview of sonic and ultrasonic logs
- Examples of CBL/VDL Log displays CBL VDL: pros and cons
- The bond index
- Ultrasonic tools: USIT
- Ultrasonic log USIT over sonic log CBL
- Examples of CBL/VDL log displays and evaluation of cement quality
- USIT case studies

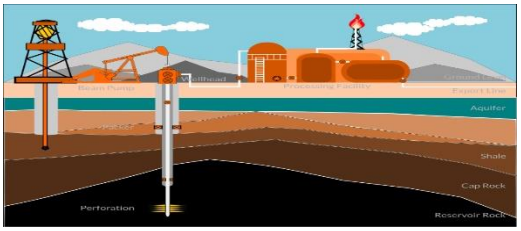
Day 5:

- Major hazards
- Risk assessment
- Squeeze operations and limitations
- Problems discussions

INSTRUCTOR

Fayez Makkar is a well-qualified Drilling Engineer with over 40 years' experience with Major Oil & Gas Companies. Experiences has been mostly in drilling area, from contractor to operator; working on various operations, workover, completion logging interpretation and design the completion, and drilling projects. Extensive experiences in directional and horizontal wells. Experience in all types of drilling operations including deep wells in both off shore and onshore oil and gas wells, H2S wells. Fayez. Makkar gained these very experiences from working with different nationalities in different countries and fields. Fayez Makkar has long experience as a Drilling freelancer instructor & curriculum provider for many international companies specially on the Middle East region.

COMPLETION AND PRODUCTION ENGINEERING (DRL 321)



This 5-day course emphasis the role of the well, as part of the integrated production system for a Hydrocarbon Asset. Appropriate well completion design can improve oil and gas production in which it can save money and increase expected benefits.

DESIGNED FOR

Drilling engineers, completion engineers, and drilling supervisors involved with drilling operations and well planning. Drilling supervisors, drilling engineers, tool pushers, managers and technical support personnel.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

By the end of course you, participants should be able to:

- State how Well Completion fits into the E&P Activity.
- Recall and discuss hydrocarbon exploitation considerations for well productivity and completion design.
- Describe the main parameters that influences Well Performance and Productivity.
- Describe the factors that influence the selection and design of the completion string and components.
- Carry out a completion design and explain how it will be run in the well.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 6 Nov	2490 €
Muscat	10 - 14 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Well Completion design concepts and the technical selection criteria for the main completion components are reviewed in detail. The last two days of the courses is spent on the completed well's flow behavior and the key parameters affecting Well Performance/Productivity. Group exercises on Completion and performance augment the learning process. The course also highlights the operation company's viewpoint in the area of Well Completion and well production Management.

COURSE OUTLINE

Day 1:

- Overview
- Well Completions and Performance
- Well Completion Methods
- Five Reservoir Fluids
- Driving Mechanisms
- Inflow Performance Relationship

Day 2:

- Gas Deliverability
- Gas Deliverability Exercises
- Multi-phase flow in Pipes
- Choke Performance
- Nodal Analysis
- Introduction to Completions
- Casing Suspension
- Tubing Selection

Day 3:

- Tubing Connections
- Packers
- Packers Selection
- Wellheads and X-mas Trees
- Upper Completion Accessories
- Safety Valves

Day 4:

- Gas Well Completions
- Running Completions
- Sand Control
- Multilaterals
- Sub-Sea Architectures
- Artificial Lift Methods

Day 5:

- Tubing Design
- Tubing Connections (design & manufacturing)
- Tubing Loads (Exercises)

INSTRUCTOR

Fayez Makkar is a well-qualified Drilling Engineer with over 40 years' experience with Major Oil & Gas Companies. Experiences has been mostly in drilling area, from contractor to operator; working on various operations, workover, completion logging interpretation and design the completion, and drilling projects. Extensive experiences in directional and horizontal wells. Experience in all types of drilling operations including deep wells in both offshore and onshore oil and gas wells, H2S wells. Fayez. Makkar gained these very experiences from working with different nationalities in different countries and fields. Fayez Makkar has long experience as a Drilling freelancer instructor & curriculum provider for many international companies specially on the Middle East region.

DIRECTIONAL, HORIZONTAL AND SIDETRACK DRILLING (DRL 322)

This training course will increase the participants' understanding of the operations carried out by directional drillers and how directional and horizontal wells are planned and optimized.

DESIGNED FOR

- Drilling engineer
- Completion engineers
- Completion Supervisors
- Drilling managers
- Drilling technical support personnel

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

By the end of course you, participants should be able to:

- Interpret TVD, polar, rectangular coordinates, dogleg severity and the problems associated with it.
- Interpret torque and drag and what factors affect those in the drilling process.
- Understand main concepts associated to well path planning.
- Recommend suitable measures to mitigate operational issues related to directional and horizontal drilling.
- Understand main concepts associated to well construction of multilateral wells.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 6 Feb	2490 €
Oslo	7 - 11 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The basic applications and techniques for multilateral wells will be covered and participants will receive instructions on planning and evaluating horizontal wells based on the objectives of the horizontal well, and how to perform the proper planning for directional and horizontal well. In addition, this PetroTeach training course will cover how to predict wellbore path based on historical data and determine the requirements to hit the target, and help solve related problems.

COURSE OUTLINE

Day 1: Directional Profiles and Other Applications of Directional Drilling

- Directional Drilling Fundamentals and short history as well as Applications and Limitations
- History and applications of Extended Reach Drilling
- Directional Well profiles
- Survey calculation methods
- Survey calculation exercises

Day 2: Dogleg, Torque and Drag Calculations

- Factors that affect torque and drag
- Friction Coefficient
- Directional Profile
- String Weight
- Directional Drill String Design
- Conventional directional well
- High Angle or Horizontal Well
- Problems & Case history

Day 3: Planning Directional and Horizontal Wells

- Determining directional well plan
- Planning directional well & Horizontal Wells
- Planning ERD

Day 4: Hole Cleaning Practices in Deviated and Horizontal Wells

- Hole Cleaning Problems Associated With Inclination
- Annular Velocity
- Flow Regime And Viscosity
- Drill Pipe Rotation And Reciprocation
- Multi-lateral wells concepts and application
- Horizontal and Multilateral Drilling Technology
- New technologies application

Day 5: Completion for Horizontal and Multi-lateral Wells

- Difference of production between horizontal and vertical/ multi-lateral/ ERD

INSTRUCTOR

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FUNDAMENTALS OF DRILLING ENGINEERING (DRL 323)

The course provides a fundamental, basic knowledge of the intricacies of drilling fluid, drilled solids management, drill bits, drill string design, cementing, casing, safety, directional drilling and tools used, and a discussion of predominant problems such as stuck pipe and lost circulation.

DESIGNED FOR

- Drilling engineer
- Completion engineers
- Non-drilling engineers

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

This course puts all the contents together for integrated system view of drilling well planning and construction. The course will cover the practical drilling engineering skills and the application of the technologies for non engineers. Participants will learn the principles and concepts for the cause's of the problems as well as the techniques employed to avoid such problems and predicting, detecting and how they take the preventive actions to avoid such problem.

The course emphasis to establish a frame for oil and gas industry to let the non engineers get and understand all the equipment are used in the drilling operations.

This course covers the drilling risks and the drilling problems, impact of these problems on production, formation damage and treatment, solids control equipment and the waste management.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Sep	2490 €
Cairo	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

During the first day of this course, the entire drilling process as well as associated terminology will be discussed. This provides the background to explain all of the interacting variables involved in drilling wells. The remainder of the week involves detail discussions of the rig equipments and the functions of each, bits types, assembly, casing, cementing, lost circulation, blowouts, under and overbalance.

COURSE OUTLINE

Day 1:

- The overall drilling process and equipment
  - Rig types
  - Location preparation for drilling operation
  - Rig components and equipment
- The language of drillers- understanding their terminology
- Rig equipment and types
- Types of drill bits
  - Drag bit (PDC - Diamond bits)
- Rolling cutter bits (Milled tooth bit -Insert bits)

Day 2:

- MWD
- Drill strings
- Drilled solids management
- Mud tank arrangements
- Drilling fluid properties

Day 3:

- Cementing
- Casing design
- Hole Problems

Day 4:

- Well control
  - How to control the well?
  - Overbalance and induced kick
  - Factors affecting on well control
- Driller's method and wait and weight method

Day 5:

- Directional drilling operations and tools
  - Types of directional drilling
  - How to perform a directional well
  - Tools used in directional
- Safety and Safety regulation

INSTRUCTOR

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DRILLSTRING DESIGN (DRL 324)

This 5-day course tries to give a good understanding regarding drillstring components. Besides that, designing drill string is discussed.

DESIGNED FOR

- Drilling Engineers
- Drilling Supervisors
- Junior Directional Drillers
- Senior Well Engineers
- Tool Pushers

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

By the end of course you, participants should be able to:

- General design casing and cementing design procedures.
- Learn practical application of different types of cement and use of additives to produce specific cement properties.
- Evaluate the success or failure of a cement job.
- Evaluate the failure causes of BHA.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	17 - 21 Aug	2490 €
Dubai	16 - 20 Feb	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course provides a comprehensive treatment of drill string design as well as the avoidance of operational problems and wear on equipment following the API recommended practices for design and operating limitations as well as the standard DS1 for design and inspection. Industry standards are used as training aids to supplement the presentation material and provide a thorough understanding of drill string components, designs, operating limits, inspection and working practices.

COURSE OUTLINE

Day 1:

- Pre-Test
- Steel And Tubulars
- Introduction- pre-class test
- Mechanical Properties of Steel & Basic Concepts- Strength & Deformation
- Hook's Law
- Buoyancy-Axial Forces and Buckling in Submerged Tubulars
- Introduction to API RP7G for Drill Stem Design and Operating Limits-DP Elements
- Group Discussions

Day 2:

- Drill Stem Design, Drill Pipe Specifications and Connections
- DP Specs- Steel Grade- Tool Joints- MU Torque- DP Classes- DP Marking

Day 3:

- Bottom Hole Assembly and Drillstring Dynamics
- BHA Selection & Design- DC and HWDP Specs and properties- BHA Design Process
- Bending Strength Ratio- Stiffness Ratio
- Stress Relief Features BHA Design for DD Applications
- Drillstring Dynamics

Day 4:

- Cementing
- Casing design
- Hole problems

Day 5:

- BHA connection stress relief I BSR
- Down hole equipment failure
- Tool failure causes
- Drill crew five second checks

INSTRUCTOR

Fayez Makkar is a well-qualified Drilling Engineer with over 40 years' experience with Major Oil & Gas Companies. Experiences has been mostly in drilling area, from contractor to operator; working on various operations, workover, completion logging interpretation and design the completion, and drilling projects. Extensive experiences in directional and horizontal wells. Experience in all types of drilling operations including deep wells in both offshore and onshore oil and gas wells, H2S wells. Fayez. Makkar gained these very experiences from working with different nationalities in different countries and fields. Fayez Makkar has long experience as a Drilling freelancer instructor & curriculum provider for many international companies specially on the Middle East region.

STUCKPIPE PREVENTION (DRL 325)

The Stuck Pipe Prevention workshop provides a comprehensive coverage in the industry for understanding and preventing the underlying causes of Stuck Pipe, Wellbore Instability, Loss Circulation, and other sources of non-productive time (NPT) in drilling operations.

DESIGNED FOR

- Drilling Engineers
- Drilling Supervisors
- Junior Directional Drillers
- Senior Well Engineers
- Tool Pushers

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn how to predict and make the contingency plan to prevent the stuck pipe, asking all the participants to bring their own case history to solve it. This course provide the participants with an excellent knowledge how to write the proper report for the stuck pipe incidents, everyone will gain an excellent experience through the discussion and solving the cases histories more than 40 cases.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	14 - 18 Sep	2490 €
Abu Dhabi	6 - 10 Dec	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The workshop also focuses on correct responses by individuals and teams, early warning signs, and minimizing the impact to drilling operations. Through world-class presentations, practical discussion, and the best reference and instructional materials available, delegates hone their knowledge of basic drilling technology and how it relates to avoiding NPT. The course include all types of stuck pipe and the recommended procedures for preventing by analyzing the operations, how to free the stuck pipe in case of occurrence, hole cleaning and impact on the problems, and fishing tools and jar energize.

COURSE OUTLINE

Day 1: Rock Mechanics

- Stress- strain diagrams
  - Geo-mechanics and structural geology
  - Mechanics and causes of folding
- Mechanics and causes of faulting and fractures
  - Factors affecting the bore hole stability
- Induced factors affecting bore hole stability
- Stress- strain diagrams
  - Geo-mechanics and structural geology
  - Mechanics and causes of folding

Day 2: What is stuck pipe?

- Primary cause of downtime
- See warning signs and respond
- Stuck pipe is almost always preventable
- Definition, Causes
  - Mechanical & Formation problems
  - Human error- lack of communication
  - What causes stuck pipe?
  - Types of sticking
  - Differential sticking
  - Case Histories (work shop)

Day 3: Warning Signs

- Prevention plan
- Have a stuck pipe prevention plan

Day 4: Fishing Operations

- Twist Off Cases
- Fracture of the drill pipe
- Fracture of the threads joining the drill collars or the drill pipe
- Overshot

Day 5: Case Histories (workshop)

- HSE related issues
- General discussion and solving the client problems

INSTRUCTOR

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WELL INTEGRITY MANAGEMENT (DRL 326)

This intensive 5-day course is designed to provide participants with a thorough knowledge of well integrity management and risk assessment in producing assets.

DESIGNED FOR

Technical Directors, Asset Manager, Petroleum Engineers, Production Technologists, Production Personnel (Production Operators, Maintenance Supervisors), Drilling and Well Servicing Personnel, Service Companies

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

At the end of the course attendees should be able to:

- Understand the concept of Well Integrity.
- Understand how different stages of well operations.
- Identify and quantify the Risks associated with different types of well integrity issues.
- Explore different techniques to reduce risks.
- Define responsibilities of personnel involved in the well lifecycle towards Well Integrity.
- Understand Well Integrity Management Systems.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	16 - 20 Nov	2490 €
Copenhagen	19 - 23 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Based on the regulatory requirements and using real examples and exercises from around the world, this represents best practice integrity management within the oil and gas industry. When to take action with a well is a critical decision, both from a safety and economic perspective. A consistent approach to decision-making provides certainty within the organization, focusing effort, and spending wisely.

COURSE OUTLINE

Day 1:

- Fundamentals of Well Integrity
- Designing Integrity in Wells- Completion Design- Life expectancy
- Capex and OPEX affects Well Integrity Management
- Maintenance Processes and Differences
- External well integrity maintenance
- Internal well integrity maintenance
- Technology & tools for internal well integrity diagnostic & monitoring

Day 2:

- How to prevent Catastrophic Failure of a well caused by external corrosion
- Calculation of corrosion and point of failure
- Internal corrosion and subsequent integrity failure
- Barrier understanding
- Monitor for and understand mechanical integrity problems

Day 3:

- Consequences of loss of integrity of one well to its surrounding wells and potential financial exposure
- Increasing amount of underground blowouts
- Abandonment

Day 4:

- Well Integrity and Barrier Philosophy
- Well Failure Model
- Risk Based Well Integrity Management and Testing
- The management of Barrier testing.
- Active Management Model

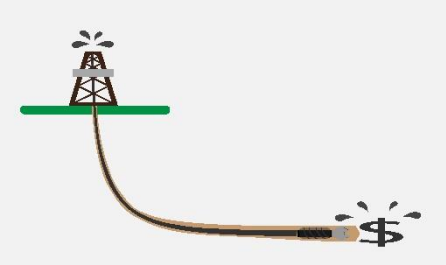
Day 5: Case Histories (workshop)

- Optimize well completion to optimize well integrity during the lifespan of the wells

INSTRUCTOR

Fayez Makkar is a well-qualified Drilling Engineer with over 40 years' experience with Major Oil & Gas Companies. Experiences has been mostly in drilling area, from contractor to operator; working on various operations, workover, completion logging interpretation and design the completion, and drilling projects. Extensive experiences in directional and horizontal wells. Experience in all types of drilling operations including deep wells in both offshore and onshore oil and gas wells, H2S wells. Fayez. Makkar gained these very experiences from working with different nationalities in different countries and fields. Fayez Makkar has long experience as a Drilling freelancer instructor & curriculum provider for many international companies specially on the Middle East region.

MANAGING LOST TIME (DRL 327)



Loss control is a process safety strategy used in several industries including, Aviation, Automobile, Transportation, Railroads, and Maritime businesses. From the loss/waste resulting, participants are then tasked to review the physical, paper and human evidence of the problem areas identified that 'go wrong'. The goal is to enable the participant to determine and evaluate both recommendations and corrective actions required.

DESIGNED FOR

The course format should anyone in onshore/offshore drilling project roles. Training is an extension of established practical loss control safety leadership principled methods.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- Recognize and analyze the true and evident extent of the physical 'loss and waste' that exists within well operations.
- Determine and evaluate what the benefits are by applying the 'knowledge and managing lost time' delivery approach can achieve.
- A primary objective is to change the way people approach challenges, using the MLT methods and metrics
- SEE (Safe, Effective, Efficient), the CAN-DO change that can result (based on case studies presented) using MLT™ metrics, management and controls as advocated within this course.

REGISTRATION

Registration is now OPEN!

Ph.D. students and group are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	9 - 12 Jun	1990 €
Stavanger	19 - 22 May	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course offers evident discussions and exercises to review, analyze, identify, investigate, evident Drilling project's, hazards and risks contributing to lost time events. You will learn how to optimize all drilling resources to more proactively avoid loss and waste to assure improved wellbore drilling optimization results. With evident case studies to endorse Drilling Excellence attainment methods utilized. Using adult learning methods, course enables selective MLT™ principle, methods, and metrics to be applied and integrated within existing management systems and daily drilling project work practices. Where the application of loss control 'Instructions, Standards, Measurements, Evaluation and Success' methods, offer a SMART metrics focus in preference to existing NPT methods.

COURSE OUTLINE

Day 1: Labelling Well Problems

- Workshop purpose, introductions Group exercise
- Optimizing (loss control) within well's operations
- Well hazards, risks and problem' avoidance
- Work group WG1: hazards and risks workgroup exercise Labelling, prioritizing problems, associating risks, begin to work mitigations

Day 2: Well Problem Solving Opportunities

- Managing loss/waste, metrics and controls well projects
- Work group WG2; Loss control 'recognition, analysis'
- Work group WG2; Recognition, analysis work group exercise
- Work group WG3: Loss control identification, determination and evaluation

Day 3: How to operate loss/waste free wells

- Well planning, design and operational
- Wells plant (rigs), systems and equipment systems
- Work group WG4: Optimizing well hazards/risks
- Managing 'lost time' optimal delivery assurance

Day 4: How to learn from well failures

- How to SEE the difference in well operations
- Work group WG6: 5 MLT methods to deliver wells success workgroup

INSTRUCTOR

Peter Aird C.Eng, CmarEng, FIMarEST, has 40 years' experience as a drilling, well engineering and operations specialist. Peter worked in Shell International from 1980-1987 as a drilling supervisor, where he then worked in staff-based positions from 1987-1993 with Shell & BP. He then developed further knowledge and experience working in global consultancy positions from 1993-2005 in Deepwater, HPHT, Exploration and Appraisal Frontiers and Deepwater Horizontal development drilling and more complex well's projects. Areas worked included: South East Asia (Brunei, Indonesia, Malaysia, Vietnam, China), North Atlantic, West of Britain, Norway, Faeroes, Greenland, the Black Sea, South Atlantic, Europe Mediterranean, Red Sea and West Africa. From 2005 Peter was employed in senior staff, consultant and advisory based specialist drilling engineering leadership roles with operating companies including Kerr McGee, Maersk & Marathon Oil, Cairn Energy (UK), ONGC (India), Centrica (Norway), and Providence Resources (Ireland). Drilling specialties further refined on a variety of subsea, horizontal, platform in-fill, HPHT, deep and ultra-deep water drilling projects.

INTRODUCTION TO DRILLING (DRL 328)

This 2-day program benefits all professionals and non-drilling support executives requiring a comprehensive introduction to drilling and well operations. New Personnel and New Engineers requiring a solid grounding in drilling operations- such as Geologists, Reservoir Engineers, Completion, Production and Process Staff, Platform Designers.

DESIGNED FOR

New Personnel and New Engineers requiring a solid grounding in drilling operations- such as Geologists, Reservoir Engineers, Completion, Production and Process Staff, Platform Designers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

This course will ensure you are better skilled to:

- Know the drilling processes, language and role in the Oil and Gas industry.
- Learn the various roles and responsibilities such as the E&P team and on-site drilling team.
- Become familiar with the drilling operations.
- Have a greater awareness of the major cost components, logistical, technical and safety considerations.
- Examine typical uncertainties, risks and problems inherent in drilling operations.
- Gain invaluable insights into latest drilling techniques, technologies, ideas and market.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2-3 Feb	1070 €
Stavanger	23 - 24 Apr	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course discusses the fundamentals of drilling, types of rigs used, procedures and the people who make the drilling equipment work. It also provides an overview of the key issues involved in selecting drilling targets, well planning, evaluation and completion, while ensuring drilling safety and efficiency. Typical challenges in drilling operations are also examined, offering solutions to overcome the hazards and risk that can exist. Advanced drilling concepts, principles and latest technology are also covered.

COURSE OUTLINE

Day 1:

- E&P Drilling Industry
- Petroleum Geology and Drilling Operations
- Organization of Drilling Operations
- Drilling Fundamentals
- Preliminaries of Well Design
- Types of Wells (Directional Profile)
- Basic/ Critical Drilling Equipment Used

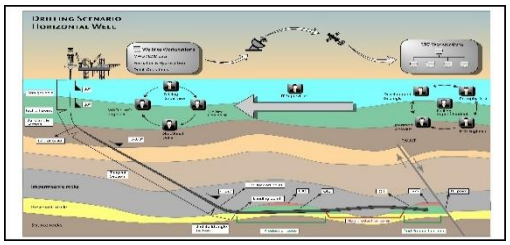
Day 2:

- The Drilling Process
- Evaluating and Completing the Well
- Well Integrity in Drilling Operations
- Well Cycle Problems/ Operations Risks
- Drilling Cost Calculations- Well Costing
- Supply Chain considerations
- New Technology Adaptation

INSTRUCTOR

Peter Aird C.Eng, CmarEng, FIMarEST, has 40 years' experience as a drilling, well engineering and operations specialist. Peter worked in Shell International from 1980-1987 as a drilling supervisor, where he then worked in staff-based positions from 1987-1993 with Shell & BP. He then developed further knowledge and experience working in global consultancy positions from 1993-2005 in Deepwater, HPHT, Exploration and Appraisal Frontiers and Deepwater Horizontal development drilling and more complex well's projects. Areas worked included: Southeast Asia (Brunei, Indonesia, Malaysia, Vietnam, China), North Atlantic, West of Britain, Norway, Faeroes, Greenland, the Black Sea, South Atlantic, Europe Mediterranean, Red Sea and West Africa. From 2005 Peter was employed in senior staff, consultant and advisory based specialist drilling engineering leadership roles with operating companies including Kerr McGee, Maersk & Marathon Oil, Cairn Energy (UK), ONGC (India), Centrica (Norway), and Providence Resources (Ireland). Drilling specialties further refined on a variety of subsea, horizontal, platform in-fill, HPHT, deep and ultra-deep water drilling projects.

HP-HT DRILLING OPERATIONS (DRL 329)



Wells under extreme conditions of temperature and pressure are termed HP-HT wells. HP-HT wells offer specific challenges including all aspects of well construction and production. This course tends to address different aspects of drilling operation under HP-HT condition.

DESIGNED FOR

The course targets any member of a project team: geo-scientists, engineers, technical, non-technical personnel at all levels. It also includes everyone involved in the design, construction, engineering, implementation and the drilling of HP HT wells. This course embraces drilling engineers with or without experience.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- Create an environment for a multi-disciplinary team to practically challenge HP HT standards, instruction, well integrity practices and develop new concepts to well safety and performance.
- Identify and eliminate the drilling hazards and risks within HP HT wells to as low as practicable.
- How to translate and sustain HP HT drilling case-study findings, success and failure learning into future drilling projects.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 5 Jun	2490 €
London	4 - 8 May	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course discusses the fundamentals of drilling, types of rigs used, procedures and the people who make the drilling equipment work. It also provides an overview of the key issues involved in selecting drilling targets, well planning, evaluation and completion, while ensuring drilling safety and efficiency. Typical challenges in drilling operations are also examined.

COURSE OUTLINE

Day 1: Introduction to HP HT drilling Operations

- HP HT Definition, classification, challenges, essentials and differences
- Well construction, design, drilling rigs equipment and HP HT operating systems
- HP HT Group Exercise

Day 2: HP HT Design, Engineering & Operations

- Well Planning Design and Construction
- Wellbore Pressure and Stability Management
- HP HT Transition and reservoir zone drilling

Day 3: HP HT Wells and Drilling Situational Problems

- General HP HT situational drilling problems
- Equipment assurance, failure prevention
- Other HP HT situational problems
- Learning from Macondo's failure

Day 4: Well Integrity, Well Control Assurance

- Well control management and assurance
- HP HT Emergency and contingencies

Day 5: HP HT Adaptive Drilling Technologies

- HP HT Technology adaptation
  - Optimizing well design
  - Wellbore strengthening
  - Mono-bore wells
  - Casing while drilling
  - Managed pressure drilling
  - Other technology adaptors
- Final close out discussions

INSTRUCTOR

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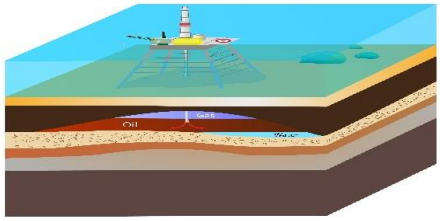
OFFSHORE MANAGED PRESSURE DRILLING (DRL 330)



MPD is a circulation system in which pore, formation fracture, and bottomhole pressures are controlled and managed at surface. This 4-day course tends to address different aspects of offshore MPD.

DESIGNED FOR

Those engaged in drilling projects seeking to manage, lead, supervise, engineer, provide technical support, serve, administer or finance the use of adaptive drilling technology methods.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- How to manage and control difficult offshore drilling problems using MPD in narrow pore or fracture pressure windows.
- Increase knowledge in regards to all concepts of overbalanced, managed and underbalanced drilling.
- Learn the origins and history of offshore MPD.
- How to apply a well's candidate selection process, select the appropriate fluid system, how to identify key hazards and risks.
- Review case studies, equipment and operation application of adaptive MPD drilling

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	15 - 18 Sep	1990 €
Abu Dhabi	6 - 9 Oct	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course discusses the fundamentals of offshore managed pressure drilling (MPD). To do this, in the first day, an introduction to MPD is presented. Next, design and required equipment for this process are elaborated. Afterwards, different methods for MDP are explained. In this step, some case studies of MDP are presented. Finally, in the last day, advance MDP technologies and related case studies are discussed.

COURSE OUTLINE

Day 1: Introduction to MPD

- Why MPD? (Pressure and stability management)
- Understanding MPD in offshore wells
- MPD Basic definition: History and Objectives

Day 2: MPD design and equipment process simplified

- MPD Selection, Standards Rules, Regulations
- Offshore MPD simplified
- MPD simplified examples and case studies
- MPD Common Equipment
- Situational problem and MPD

Day 3: Managed Pressure Drilling Methods

- Contestant Bottom Hole Pressure drilling 'CBHP
- Advanced offshore MPD- Dual Gradient drilling
- DGD Case studies
- Advanced offshore MPD- Mud cap drilling

Day 4: Advance MPD- Technology review

- Pressurized Mud Cap Drilling (PMCD)
- Mud cap and Pressurized Mud Cap case studies
- Offshore HPHT MPD
- MPD Offshore technologies

INSTRUCTOR

Peter Aird C.Eng, CmarEng, FIMarEST, has 40 years' experience as a drilling, well engineering and operations specialist. Peter worked in Shell International from 1980-1987 as a drilling supervisor, where he then worked in staff-based positions from 1987-1993 with Shell & BP. He then developed further knowledge and experience working in global consultancy positions from 1993-2005 in Deepwater, HPHT, Exploration and Appraisal Frontiers and Deepwater Horizontal development drilling and more complex well's projects. Areas worked included: Southeast Asia (Brunei, Indonesia, Malaysia, Vietnam, China), North Atlantic, West of Britain, Norway, Faeroes, Greenland, the Black Sea, South Atlantic, Europe Mediterranean, Red Sea and West Africa. From 2005 Peter was employed in senior staff, consultant and advisory based specialist drilling engineering leadership roles with operating companies including Kerr McGee, Maersk & Marathon Oil, Cairn Energy (UK), ONGC (India), Centrica (Norway), and Providence Resources (Ireland). Drilling specialties further refined on a variety of subsea, horizontal, platform in-fill, HPHT, deep and ultra-deep water drilling projects.

DEEPWATER DRILLING (DRL 331)

Deepwater drilling is the process of creating a borehole using a drilling rig for oil production under the deep sea. The required technology is advanced. Besides that, problems are more challenging compared to ordinary drilling. This 5-day course tends to address different aspects of deepwater drilling.

DESIGNED FOR

Persons engaged in deep-water or complex well's drilling projects; in well design, engineering, operational or organizational functions such as admin, technical, finance, QHSE, logistics, services, support, drilling, geology, geo-science, petroleum, reservoir, completions, workover and production.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- Deliver the awareness required for a multidisciplinary skills to be developed to enable the practical design, engineering and safe drilling operation of a Deepwater well.
- Develop the knowledge required to recognize and analyze the difficulties, challenges and opportunities that exist in deepwater drilling, design, execution and how to mitigate operations risks.
- Equip participants with the required tools to evaluate, organize, plan, implement and control a deepwater well's drilling operating process.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	19 - 23 Oct	2490 €
Amsterdam	13 - 17 Jul	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course discusses the fundamentals of deepwater drilling. In this regard, initially, some basic issues regarding deepwater drilling are presented. Then, the required equipment for this process is discussed. Next, tubular design, cementing and underlying problems are stated. In the next day, various aspects need to be considered for a safe well control system to be explained. Finally, new adaptive technologies and abandonment systems are elaborated.

COURSE OUTLINE

Day 1: Deepwater Fundamentals, Essentials

- DW Essentials and differences
- DW Project Standards, Rules, Regulations
- DW Rigs, equipment, systems
- DW Geology and geoscience

Day 2: DW Design, SSBOP, Riser and Subsea Equipment

- Deepwater structural string design
- Deepwater Riserless Drilling
- DW Subsea Capital Equipment
- DW Conductor, Wellhead, SSBOP/Riser design

Day 3: Deepwater Well Construction, Management

- Deepwater casing, tubular design. well integrity
- Deepwater Pressure and Stability Management
- Deepwater Drilling & Cementing
- Deepwater Situational Problems Hazards, Risks

Day 4: DW Well Integrity, Control, Assurance

- Well control 'level 1' assurance management
- Deepwater Secondary 'level 2' well control
- Deepwater 'level 3' well control
- Deepwater Well Control Group exercise

Day 5: Deepwater Technology, Well Abandonment

- Deepwater Adaptive technologies
- Deepwater Well Abandonment

INSTRUCTOR

Peter Aird C.Eng, CmarEng, FIMarEST, has 40 years' experience as a drilling, well engineering and operations specialist. Peter worked in Shell International from 1980-1987 as a drilling supervisor, where he then worked in staff-based positions from 1987-1993 with Shell & BP. He then developed further knowledge and experience working in global consultancy positions from 1993-2005 in Deepwater, HPHT, Exploration and Appraisal Frontiers and Deepwater Horizontal development drilling and more complex well's projects. Areas worked included: Southeast Asia (Brunei, Indonesia, Malaysia, Vietnam, China), North Atlantic, West of Britain, Norway, Faeroes, Greenland, the Black Sea, South Atlantic, Europe Mediterranean, Red Sea and West Africa. From 2005 Peter was employed in senior staff, consultant and advisory based specialist drilling engineering leadership roles with operating companies including Kerr McGee, Maersk & Marathon Oil, Cairn Energy (UK), ONGC (India), Centrica (Norway), and Providence Resources (Ireland). Drilling specialties further refined on a variety of subsea, horizontal, platform in-fill, HPHT, deep and ultra-deep water drilling projects.

STUCK PIPE, FISHING AND SIDE-TRACKING (DRL 332)

The main reason behind primary cementing is zonal isolation to prevent fluid to migrate into the annulus, protect and support the casing or liner from corrosive fluids and adjacent formations. This 4-day course was designed to address the issue of primary cementing in oil fields.

DESIGNED FOR

Persons associated in drilling or workover projects in well design, engineering, operational or organizational support functions. Drilling, Geology, Geo-Science, Completions, Contractor and 3rd party support roles or functions including team leaders, supervisors or management functions.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- Prevent stuck pipe in drilling and workover through best practise design, planning and execution.
- Apply the technical skills to safely fish and side-track.
- Develop a multidisciplinary team-work to deliver trouble free drilling and workover operations.
- Construct an awareness of sidetracking methods in different formation types.
- Plug back cementing, open and cased hole side-tracking, and how to apply the tools, equipment methods and practices required.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	18 - 20 Mar	1740 €
Amsterdam	14 - 16 Jan	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

A participative program to enable drilling and workover personnel with the knowledge to prevent stuck pipe and further develop the skills to practically fish and side-track wells. This course explores best practices through design, planning and job execution to primarily prevent situational stuck pipe and associated conditional problems resulting within drilling and workover well operations.

COURSE OUTLINE

Day 1:The Stuck Pipe Problem

- Stuck Pipe Causation
- The Team impact to Prevent Stuck Pipe

Day 2: Predicting Stuck Pipe

- Completion Activities
- Preventing Stuck Pipe
- Freeing Stuck Pipe

Day 3: Fishing & Milling Essentials

- Sidetracking

INSTRUCTOR

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CASING AND TUBULAR DESIGN (DRL 333)

Tubular and casing must be properly selected to withstand all loads during the life of the well. Engineers must select the appropriate tubular grade and weight, which will withstand the loads and be economic for the project. This course tends to address various designing parameters that need to be considered for casing and tubular design.

DESIGNED FOR

Persons associated in drilling or workover projects in well design, engineering, operational or organizational support functions. Drilling, Geology, Geo-Science, Completions, Contractor and 3rd party support roles or functions including team leaders, supervisors or management functions.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- Prevent well integrity issues using best practise design, planning and life of well execustion
- To understand the importance of and grasp the process of well integrity management.
- Acquire the technical skills to safely mitigate life of well integrity problems through appropriate planning, organization, implementation and well control operations from project start to finish.

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	17 - 21 Aug	2490 €
Aberdeen	15 - 19 Jun	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

A participative program to enable well operations personnel to develop the required knowledge to assure the best casing and tubular design. On the first day, the design of different tubular and casing are taught. Next, preliminary design and design factors are explained completely. Then, the rating of pipes based on burst and collapse is discussed. Afterward, different types of loads are elaborated e.g. biaxial. Finally, some issues such as various types of connections and crucial design parameters are stated.

COURSE OUTLINE

Day 1:

- Casing and tubular design
- Conductor design
- Structural and surface casing design

Day 2:

- Preliminary design (I)
- Preliminary design (II)
- Design loads and design factors

Day 3:

- Pipe rating burst and collapse
- Pipe rating burst and collapse (work examples)
- Pipe rating axial loads

Day 4:

- Biaxial and combined loads
- Biaxial and combined loads (work examples)
- Tri-axial design

Day 5:

- Casing and tubular connections
- Special casing and tubular design considerations
- Work group design session (IV)

INSTRUCTOR

Peter Aird C.Eng, CmarEng, FIMarEST, has 40 years' experience as a drilling, well engineering and operations specialist. Peter worked in Shell International from 1980-1987 as a drilling supervisor, where he then worked in staff-based positions from 1987-1993 with Shell & BP. He then developed further knowledge and experience working in global consultancy positions from 1993-2005 in Deepwater, HPHT, Exploration and Appraisal Frontiers and Deepwater Horizontal development drilling and more complex well's projects. Areas worked included: SouthEast Asia (Brunei, Indonesia, Malaysia, Vietnam, China), North Atlantic, West of Britain, Norway, Faeroes, Greenland, the Black Sea, South Atlantic, Europe Mediterranean, Red Sea and West Africa. From 2005 Peter was employed in senior staff, consultant and advisory based specialist drilling engineering leadership roles with operating companies including Kerr McGee, Maersk & Marathon Oil, Cairn Energy (UK), ONGC (India), Centrica (Norway), and Providence Resources (Ireland). Drilling specialties further refined on a variety of subsea, horizontal, platform in-fill, HPHT, deep and ultra-deep water drilling projects.

WELL INTEGRITY(DRL 334)

Technical, operational and organizational practices being performed to reduce the release risk of formation fluids. Indeed, versatile processes implemented in a well to modify the production. This course tends to address different aspects of well integrity.

DESIGNED FOR

Personnel involved in the operational management, leadership, supervisory, engineering, technical or administrative support of a well's operational life cycle: drilling, completion, well testing, well services, intervention, work-over, to final well abandonment.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- Understand the importance of the process of well integrity management.
- Prevent well integrity issues using best practice design, planning and life of well execution.
- Acquire the technical skills to safely mitigate life of well integrity problems through appropriate planning, organization, implementation and well control operations.
- Develop a multidisciplinary approach to deliver trouble free operations through compliant well integrity assurance.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	18 - 20 Nov	1740 €
Stavanger	2 - 4 Sep	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

A participative program to enable well operations personnel to develop the required knowledge to assure well integrity is maintained through a well's operating life cycle: drilling, completion, well testing, well services, intervention, work-over, to final well abandonment

COURSE OUTLINE

Day 1: Well Operations and Abandonment

- General Principles
- Drilling Activities
- Well integrity workgroup 1

Day 2: Well Operations

- Completion Activities
- Well Testing Activities
- Snubbing, MPD and UBD Activities
- Well integrity workgroup 2

Day 3: Well Operations and Abandonment

- Wireline, Coiled Tubing, Pumping and Production Operations
- Well Abandonment

INSTRUCTOR

Peter Aird C.Eng, CmarEng, FIMarEST, has 40 years' experience as a drilling, well engineering and operations specialist. Peter worked in Shell International from 1980-1987 as a drilling supervisor, where he then worked in staff-based positions from 1987-1993 with Shell & BP. He then developed further knowledge and experience working in global consultancy positions from 1993-2005 in Deepwater, HPHT, Exploration and Appraisal Frontiers and Deepwater Horizontal development drilling and more complex well's projects. Areas worked included: Southeast Asia (Brunei, Indonesia, Malaysia, Vietnam, China), North Atlantic, West of Britain, Norway, Faeroes, Greenland, the Black Sea, South Atlantic, Europe Mediterranean, Red Sea and West Africa. From 2005 Peter was employed in senior staff, consultant and advisory based specialist drilling engineering leadership roles with operating companies including Kerr McGee, Maersk & Marathon Oil, Cairn Energy (UK), ONGC (India), Centrica (Norway), and Providence Resources (Ireland). Drilling specialties further refined on a variety of subsea, horizontal, platform in-fill, HPHT, deep and ultra-deep water drilling projects.

OIL FIELD PRIMARY CEMENTING (DRL 335)

The main reason behind primary cementing is zonal isolation to prevent fluid to migrate into the annulus, protect and support the casing or liner from corrosive fluids and adjacent formations. This 4-day course was designed to address the issue of primary cementing in oil fields.

DESIGNED FOR

Persons engaged in managing, leading, supervising, drilling, well design, engineering, operational or organizational and technical support functions.
Pre-requisite: 2-3 years' knowledge of drilling wells.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- Deliver the foundation elements to safely deliver compliant primary cement design, execution and long term life of well integrity requirements.
- Develop the knowledge of laboratory test procedures for cement additives.
- Recognize and analyze cement challenges within oil field drilling.
- Execute cement calculations, design exercises and cement evaluation methods.
- Outline special purpose cements.
- Equip participants with the knowledge of cementing tools, and technology methods to enable complaint cement design and operations.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	8 - 11 Dec	1990 €
Aberdeen	3 - 6 Nov	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The main focus of this course is primary cementing in oil fields. In this sense, initially, this process is explained briefly. Next, calculations and interactions pertaining to the cementing are discussed. Afterward, the required equipment for this process is elaborated. Finally, some special issues such as plug-back cementing calculations are taught and trained.

COURSE OUTLINE

Day 1: Oil Field Primary Cementing

- Oil Field Primary Cementing - Introduction
- Cement Functions, Additives, Composition, Lab Tests
- Fluids Mud Displacement, Fluid Migration
- Primary Cement Calculations

Day 2: Cement Calculations, Interaction, Special Cements

- Single Stage Cement Calculations
- Cement/Formation Interactions
- Specialized Cement Systems

Day 3: Tools, Equipment, Evaluation and Plug Back

- Cementing Equipment
- Cement Evaluation Guidelines
- Remedial/Plug Back Cementing

Day 4: Squeeze, Horizontal, Life of Well Cementing

- Plug Back Cementing Calculations
- Horizontal Well Cementing
- Life of Well Cementing
- Cement simulation and Data Acquisition Software

INSTRUCTOR

Peter Aird C.Eng, CmarEng, FIMarEST, has 40 years' experience as a drilling, well engineering and operations specialist. Peter worked in Shell International from 1980-1987 as a drilling supervisor, where he then worked in staff-based positions from 1987-1993 with Shell & BP. He then developed further knowledge and experience working in global consultancy positions from 1993-2005 in Deepwater, HPHT, Exploration and Appraisal Frontiers and Deepwater Horizontal development drilling and more complex well's projects. Areas worked included: Southeast Asia (Brunei, Indonesia, Malaysia, Vietnam, China), North Atlantic, West of Britain, Norway, Faeroes, Greenland, the Black Sea, South Atlantic, Europe Mediterranean, Red Sea and West Africa. From 2005 Peter was employed in senior staff, consultant and advisory based specialist drilling engineering leadership roles with operating companies including Kerr McGee, Maersk & Marathon Oil, Cairn Energy (UK), ONGC (India), Centrica (Norway), and Providence Resources (Ireland). Drilling specialties further refined on a variety of subsea, horizontal, platform in-fill, HPHT, deep and ultra-deep water drilling projects.

LATENT CAUSE ANALYSIS (DRL 336)

DESIGNED FOR

Any person or organization looking to change their culture through changing the way people think, can routinely host this seminar at their sites year after year.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- Time-proven LCA techniques that enable individuals or organizations to come to grips with quality, health, safety, equipment and environmental related 'People' problems.
- A stand-alone analysis method that can be used by individuals or organizations on large, medium, or small events.
- For Failsafe's Latent Cause Analysis™ process to be uniquely applied within any suited industrial, engineering and/ or manufacturing businesses to 'Change People'.

REGISTRATION

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 9 Jul	1990 €
Stavanger	8 - 11 Sep	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course discusses the fundamentals of drilling, types of rigs used, procedures and the people who make the drilling equipment work. It also provides an overview of the key issues involved in selecting drilling targets, well planning, evaluation and completion, while ensuring drilling safety and efficiency. Typical challenges in drilling operations are also examined, offering solutions to overcome the hazards and risk that can exist. Advanced drilling concepts, principles and latest technology are also covered.

COURSE OUTLINE

Day 1:

- What is latent cause analysis (LCA)?
- Case Study: The challenger explosion
- Inculcate
- DW Geology and geoscience

Day 2:

- Introducing ROOTS, an investigative Discipline
- How to RESPOND?

Day 3:

- How to RESPOND (continued)
- How to ORGANIZE a team of Stakeholders
- How to define the ORDER in the chaos?
- Deepwater Situational Problems Hazards, Risks

Day 4:

- How to define the ORDER in the chaos, (continued)
- Look at Latent Causes of Failure
- How to TRANSLATE Your Findings
- How to SUSTAIN the Latent Cause Effort in the Workplace
- Closing

INSTRUCTOR

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ADVANCED DRILLING FLUIDS, PRESSURE AND HYDRAULICS MANAGEMENT (DRL 337)

The main reason behind primary cementing is zonal isolation to prevent fluid to migrate into the annulus, protect and support the casing or liner from corrosive fluids and adjacent formations. This 4-day course was designed to address the issue of primary cementing in oil fields.

DESIGNED FOR

This course is intended for all geologies, geophysicists, petroleum, reservoir, drilling engineers with a basic knowledge of well design principles.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The objectives of this workshop are to enable participants to:

- Learn about the functions of drilling fluids and the composition of water based mud.
- Learn about oil and synthetic based mud products and systems.
- Learn about lost circulation and stuck pipe problems and solutions.
- Learn about hole cleaning, hydraulics calculations, real time measurements, and reservoir drill-in fluid systems.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Dec	2490 €
Abu Dhabi	5 - 9 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The main focus of this course is investigation of fluids during drilling process. In this sense, initially, some basics about drilling fluids are presented. Then, water and oil based mud systems are discussed. Next, main problems and challenges in circulation system are stated. In the next step, some treatments and advice to avoid common problems are taught. Finally, some emerging technologies for drilling process are elaborated.

COURSE OUTLINE

Day 1: Basics of Drilling Fluids

- Functions of drilling fluids
- Composition of water based mud
- Clay chemistry
- Rheology

Day 2: Water Based & AMP; Oil Based Mud Systems

- Products and systems
- High performance WBM
- Oil and synthetic based mud products and systems

Day 3: Circulation System and Pipe Problems

- Lost circulation
- Stuck pipe problems
- HPHT challenges
- HPHT applications and systems

Day 4: Drill Care

- Hole cleaning
- Virtual hydraulics and real time measurements
- Reservoir drill-in fluid system
- Completions fluid
- Well clean up and displacement procedures

Day 5: Equipment and future technologies

- Solid control equipment
- Emerging technologies
- Course review and wrap up

INSTRUCTOR

Peter Aird C.Eng, CmarEng, FIMarEST, has 40 years' experience as a drilling, well engineering and operations specialist. Peter worked in Shell International from 1980-1987 as a drilling supervisor, where he then worked in staff-based positions from 1987-1993 with Shell & BP. He then developed further knowledge and experience working in global consultancy positions from 1993-2005 in Deepwater, HPHT, Exploration and Appraisal Frontiers and Deepwater Horizontal development drilling and more complex well's projects. Areas worked included: South East Asia (Brunei, Indonesia, Malaysia, Vietnam, China), North Atlantic, West of Britain, Norway, Faeroes, Greenland, the Black Sea, South Atlantic, Europe Mediterranean, Red Sea and West Africa. From 2005 Peter was employed in senior staff, consultant and advisory based specialist drilling engineering leadership roles with operating companies including Kerr McGee, Maersk & Marathon Oil, Cairn Energy (UK), ONGC (India), Centrica (Norway), and Providence Resources (Ireland). Drilling specialties further refined on a variety of subsea, horizontal, platform in-fill, HPHT, deep and ultra-deep water drilling projects.

W-CAT: WELL CONTROL ASSURANCE TRAINING (ADVANCED WELL CONTROL AND BLOWOUT AVOIDANCE) (DRL 338)

Customer-built course for well's operational and engineering personnel, that may be inexperienced in how to measure, manage and control tier two to three oil and gas loss of well control, and blowout events.

DESIGNED FOR

The course has been designed for drilling and well completion engineers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

Participants will acquire:

- A detailed insight into proven well control methods, tools, and techniques to take control of complex operational situations that have escalated to potential blowout conditions or worse.
- Benefit the instructional compilation of unique and proven well control principles, practices, and expert techniques.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Apr	2490 €
Stavanger	2 - 6 Feb	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course purpose is to develop a full understanding of well control assurance measures that shall proactively prevent and avoid hazards, risks, cause, and effects that at times can escalate to a tier 3, uncontrolled blowout event. The goals and objectives are to assure comprehension of proven principles, field techniques and practices required to take control of the well, using the safest, and most efficient methods. In addition to first revisiting and expanding upon (Tier 1) classic kick-control methods on day 1. Solutions and guidance is then presented to avoid, prevent and resolve Tier 2 and Tier 3 well control events, through days 2,3 and 4. An optional day 5 for offshore wells can be included if/ as required.

COURSE OUTLINE

Day 1: All about CCAL

- Hazards/Risks associated with Tier 2 events and Tier blowouts Composition of water based mud
- Conventional well control techniques (Tier 1 events)
- Non-conventional well control techniques (Tier 2 events)
- Blowout (Tier 3 Events) events

Day 2: Fire-fighting, Capping and Snubbing Methods

- Firefighting Operations
- Capping Operations
- Snubbing operations
- Snub in dynamic kill

Day 3: Fire-fighting, Capping and Snubbing Methods

- Firefighting Operations
- Capping Operations
- Snubbing operations
- Snub in dynamic kill

Day 4: Response and Incident Management

- Environmental pollution abatement /containment (Industry sources)
- Handling toxic gases
- Hot tapping (Chapter 16), Freezing techniques.
- Crisis management (Generic Crisis management plan)

Day 5: W-CAT Offshore and Subsea Wells

- Fixed installations (Operators standards, guidelines)
- Mobile offshore drilling units (Operators, industry documents)
- Deepwater Horizon (Macondo well blowout) review
- Subsea wells (Hazards, risks essential differences)

INSTRUCTOR

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DIGITIZATION IN DRILLING AND AUTOMATED OPERATION (DRL 339)

The aim of this course is to provide the skills needed to focus on the new technology (wired pipe system and its accessories) and use it for transferring a high amount of information from the downhole and along the string to the surface in real-time.

DESIGNED FOR

The course is designed for Petroleum Engineers, Drilling Engineers, Geologists, Petrophysicists, Geo-modelers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of the top-most-level content of the course are mentioned as follows:

- A deep understanding of data transfer from the surface to the downhole and vice versa and the tools and equipment to use for this process.
- The ability to use the wired pipe system to plan for automated operation for different drilling services and digitalize the operation.

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	19 - 22 May	1990 €
Stavanger	3 - 6 Aug	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Sending and receiving information via Wired Pipe will help to detect faults and symptoms downhole and mitigate issues in real-time. Also, it will help all the drilling services perform more accurately and remotely while drilling and during operation. In this course, different drilling services (like control mud level system, directional drilling and etc.) and the connection to wired pipe will be discussed.

COURSE OUTLINE

Day 1:

- Welcome and introduction
- Downhole Communication Equipment
- Mud pulsing equipment
- Mud pulsing system
- Powerline equipment
- Powerline system

Day 2:

- Wired Pipe equipment
- Wired pipe system
- Real-time data and drilling services
- CML equipment
- CML operation (Drilling)
- CML operation (cementing)
- Exercise

Day 3:

- Application of real-time data in CML system
- MPC equipment
- MPC operation
- Application of real-time data in MPC system
- MPD equipment
- Exercise

Day 4:

- MPD operation
- Application of real-time data in MPD system
- Application of real-time data in downhole faults detection
- Remote operation and digitalization
- Exercise

INSTRUCTOR

Dr. Behzad Elahifar has accumulated 16 years of experience in drilling engineering. The experience comes from both onshore and offshore from different regions in the world like the Middle East, North Sea, Barents Sea, Caspian Sea, Australia, and the Gulf of Mexico. He has experience working with NOV as a Project manager with Wired Drill Pipe and real-time communication systems in the North Sea and the Barents Sea with Equinor and Lundin. Behzad also has the experience of working as a Project manager and Managed Pressure drilling engineer with Enhanced Drilling company. He has experience working with Controlled mud level systems and managed pressure systems for drilling and cementing operations on the Norwegian continental shelf and in the Gulf of Mexico and the Caspian Sea. Following is his working experience background:

- Associated Professor, NTNU Geoscience and Petroleum department
- Project Manager, NOV (National Oil Well Varco) Company
- Project Manager/Drilling Engineer (MPD), Enhanced Drilling Company
- Drilling Engineer, Advanced Drilling Solutions Company
- Drilling Instructor/Researcher, University of Leoben
- Drilling Supervisor, NIOC (National Iranian Oil Company)

CONTROL MUD LEVEL, MANAGED PRESSURE DRILLING, RISER-LESS MUD RECOVERY AND MANAGED PRESSURE CEMENTING (DRL 340)

The aim of this course is to provide the skills needed to focus on methods to drill in sections with narrow mud window where conventional drilling is not possible.

DESIGNED FOR

The course is designed for Petroleum Engineers, Drilling Engineers, Geologists, Petrophysicists, Geo-modelers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of the top-most-level content of the course are mentioned as follows:

- The learning objectives of the top-most-level content of the course are mentioned as follows:
- A deep understanding of managed pressure drilling, control mud level, and riser-less mud recovery system.
- Application of using MPD, CML, and RMR systems in operation and designing them for different drilling scenarios based on bottom hole pressure limitations and cost reduction purposes.
- Managed pressure cementing for all methodologies which were mentioned above.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	12 - 15 May	1990 €
Stavanger	9 - 12 Jun	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The techniques and technologies which are going to be discussed will cover both onshore and offshore drilling and cementing operations. Managed pressure drilling, control mud level, and riser-less mud recovery (top-hole) are technologies that help to drill problematic zones throughout narrow mud window sections and also help to drill each section more efficiently and longer. The outcome of using mentioned methods will reduce NPT (reducing carbon footprint) and save operation costs.

COURSE OUTLINE

Day 1:

- Welcome and introduction
- What is MPD?
- Reason for using MPD
- MPD equipment, operation and design
- Pressurized Mud Cap Drilling operation
- Exercise

Day 2:

- What is CML system?
- Reason for using CML system
- CML system equipment, operation & design
- Controlled Mud Cap Drilling operation
- Exercise

Day 3:

- What is RMR system?
- Application of RMR system
- RMR system equipment
- Operation with RMR system
- RMR design for top-hole section
- Exercise

Day 4:

- What is MPC?
- Reason for using MPC
- Using MPC with CML system
- Using MPC with RMR system
- MPC equipment with CML and RMR
- MPC operation & design

INSTRUCTOR

Dr. Behzad Elahifar has accumulated 16 years of experience in drilling engineering. The experience comes from both onshore and offshore from different regions in the world like the Middle East, North Sea, Barents Sea, Caspian Sea, Australia, and the Gulf of Mexico. He has experience working with NOV as a Project manager with Wired Drill Pipe and real-time communication systems in the North Sea and the Barents Sea with Equinor and Lundin. Behzad also has the experience of working as a Project manager and Managed Pressure drilling engineer with Enhanced Drilling company. He has experience working with Controlled mud level systems and managed pressure systems for drilling and cementing operations on the Norwegian continental shelf and in the Gulf of Mexico and the Caspian Sea. Following is his working experience background:

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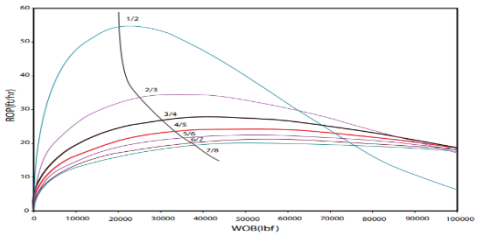
- Drilling Engineer, Advanced Drilling Solutions Company
- Drilling Instructor/Researcher, University of Leoben
- Drilling Supervisor, NIOC (National Iranian Oil Company)

APPLIED DRILLING ENGINEERING (DRL 341)



The four-day intense Drilling Engineering Optimization Course covers most of the basic/advanced engineering and concepts drilling engineering optimization. The goal is to provide the participants with a solid understanding of the optimization principles, as well as the analytical and quantitative methods necessary for drilling optimization.

DESIGNED FOR

Drilling engineers, well operations personnel, who would like to gain greater understanding of mud motor design and, their applications in drilling.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course, participants will

- Enable to understand the general technics of drilling optimization
- Learn how to use algorithms to solve different types of optimization programs
- Investigate the maximization and minimization of objective functions, and the role of drilling parameters.
- Help to optimize the design drillstring and casings
- Design considerations, and optimized operational aspects of drilling
- Understand the error modeling the optimization methodologies
- Understand the problems encountered for optimization during realtime operations
- Also materials related to current technologies with real-world examples

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	3 - 6 Nov	1990 €
Stavanger	7 - 10 Sep	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Topics will include techniques of optimization, basic concepts, different optimization methods, hydraulic optimization, different nozzle selection criteria, diamond and roller cone bit weight on bit, rotary speed drilling optimization, hydraulic optimization with special downhole tools, well cost estimation, minimum cost casing design. This course envisages studying algorithms and optimization techniques used in the various stages of drilling and well completion operations. This course also focuses on the latest modeling approaches based on data-driven modeling, machine learning, AI with real-world problems. The course finishes with the team project presentation based on the problem assigned at the start of the class.

COURSE OUTLINE

Day 1:

- Optimization Overview
- Well Planning: Key in Drilling Optimization
- Bit & BHA records
- Drilling parameter records
- Wellbore problems and non productive time events
- Stick diagrams
- Bits
- BHA and Drill Pipe

Day 2:

- Drilling Rig- Major Factor in Drilling Optimization
- Wellpath Optimization

Day 3:

- Drilling Fluid Optimization
- Hydraulic Optimization
- Conventional Managed Pressure Drilling
- Dual Gradient Drilling
- Riserless Mud Recovery
- Controlled Mud Level

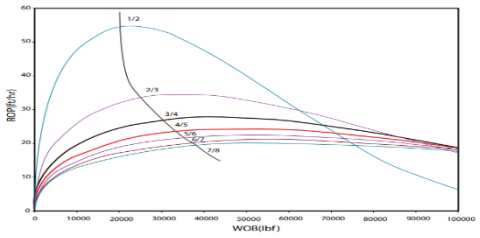
Day 4:

- Drilling Parameters Optimization
- Shale Stabilization - Optimization
- Real-time Optimization
- Influx
- Stuck Pipe
- Wellbore Stability
- Vibration
- Inadequate Hole Cleaning
- Well Cost Optimization
- Wellbore Size Optimization
- Flat Time Optimization

INSTRUCTOR

Dr.Robello Samuel is a Chief Technical advisor and Senior Technology Fellow working with Halliburton since 1998. He began his career working on rigs as a drilling engineer and has more than 40 years of experience. He is presently a research and engineering lead for well engineering and broader area of cyber-physical systems, artificial engineering intelligence. He is a Distinguished member of the SPE, SPE Distinguished Lecturer, recipient of SPE-GC Drilling Engineering Award, SPE International Drilling Engineering Award, and SPE/AIME Honorary Member. He is concurrently an adjunct professor for 18 years at the University of Houston and 5 years at USC, LA. He has published more than 243 technical papers, holds 94 US patents, and 115 worldwide patents. Dr. Samuel serves regularly as a keynote speaker at major conferences and corporate forums and is regarded as one of the world's most influential contributors to advancement of research and practice in drilling engineering. He holds BS & MS degrees in mechanical engineering, and MS & PhD degrees in petroleum engineering from the University of Tulsa.

DRILLING AUTOMATION (DRL 342)



The energy sector has persisted in looking for methods to raise the global projects' profitability, safety, and quality. Drilling automation and real-time applications both offer the cutting edge needed to make complicated oil and gas well plans both technically and financially possible. It is not just drilling ahead but with data, ML, AI, automation and people converging to autonomics making the physical drilling system in self-configuring, self-diagnosis, self-healing, self-optimizing and self-managing state.

DESIGNED FOR

This course is intended for Managers, Well engineers and drilling supervisors who are responsible for planning and executing drilling and workover operations. Technical authority holders who are responsible for digital and automation initiatives.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

Participants will be able to:
Have a practical understanding of artificial intelligence (AI) and its business applications by the end of the course, giving you the knowledge and assurance that the sector is prepared for transformation into a forward-thinking, effective, and sustainable business.

Provide the capacity to integrate critical AI management and leadership insights into the way your company runs in order to lead strategic decision-making with knowledge and improve business performance.

REGISTRATION

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2026 Schedule and Tuition

Online	18 - 19 Nov	1070 €
Stavanger	9 - 10 Sep	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The drilling world will work on reverse engineering the brain and the computer architecture mimicking the driller's brain's network. It consists of engineering formalism, plus interpretation of data and thus providing the reaction link between the mathematical formulation and elements of the physical world. This 1-2 full-day course is intended for participants who already have a sound understanding of the principles of the design and/or construction of wells and with more than 3 years of relevant industry experience.

COURSE OUTLINE

Day 1:

- Practical applications AI and Machine Learning to optimize operations, enhance efficiency, and drive sustainable growth
  - Trends, tools and applications
  - Customer experience and management
- Stages of general automation in other industries
  - Real world problems
- Drilling automation
  - Planning: pre-engineering and training
  - Execution: monitoring and operation
  - Learning: Post job analysis and simulation
- Types of drilling automation
  - Surface system
  - Downhole system
  - Subsurface system

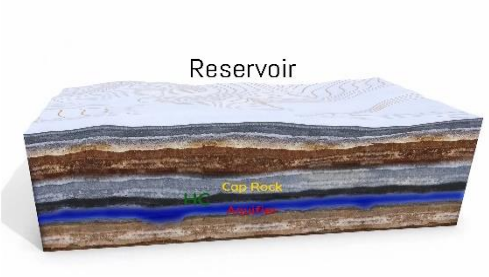
Day 2:

- Monitoring implementation
- Operation implementation
- Simulation implementation
- Automated control of MPD operation
- Human and autonomous system interaction
  - Human performance
  - Design
  - Technology
  - Roadmap
- Need for a Drilling Systems Automation Vision
- Crafting journey from strategy and capabilities to execution
- Need to coordinate across industries
- Develop a catalyst for standardization
- Drilling Risk Protection and Reducing Human Error through Automation
- Cyber security, awareness, and standards
- Human, social, and cultural impacts of automation

INSTRUCTOR

Dr.Robello Samuel is a Chief Technical advisor and Senior Technology Fellow working with Halliburton since 1998. He began his career working on rigs as a drilling engineer and has more than 40 years of experience. He is presently a research and engineering lead for well engineering and broader area of cyber-physical systems, artificial engineering intelligence. He is a Distinguished member of the SPE, SPE Distinguished Lecturer, recipient of SPE-GC Drilling Engineering Award, SPE International Drilling Engineering Award, and SPE/AIME Honorary Member. He is concurrently an adjunct professor for 18 years at the University of Houston and 5 years at USC, LA. He has published more than 243 technical papers, holds 94 US patents, and 115 worldwide patents. Dr. Samuel serves regularly as a keynote speaker at major conferences and corporate forums and is regarded as one of the world's most influential contributors to advancement of research and practice in drilling engineering. He holds BS & MS degrees in mechanical engineering, and MS & PhD degrees in petroleum engineering from the University of Tulsa.

FUNDAMENTALS OF RESERVOIR ENGINEERING (RES 400)



The course presents the fundamentals of reservoir engineering and describe the components of forces acting on hydrocarbon reservoirs. The course is designed for non-reservoir engineers or reservoir engineer with a basic background. Theoretical aspects coupled with explanation of laboratory experiments will be presented to assist reservoir and exploitation engineers for better understanding of hydrocarbon reservoirs.

DESIGNED FOR

The course is designed for Geoscientists and engineers with basic or no reservoir engineering experience.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- The physics governing on petroleum reservoirs.
- Reservoir engineering concepts and terminology.
- Basic concepts and principles of reservoir engineering.
- Review of fluid flow in porous media.
- PVT and phase behavior.
- SCAL tests and interpretations.
- Well testing.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	11 - 15 May	2490 €
Accra	13 - 17 Apr	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 5-days course gives a better understanding of reservoir engineering parameters and factors affecting on oil recovery. The goal of the course is to give a good understanding of the reservoir engineering processes, fluid flow in porous media, reservoir types and drive mechanisms, recovery mechanisms in oil production, rock and fluid properties, material balance, reserve estimation and other important parameters in reservoir engineering.

COURSE OUTLINE

Day 1:

- Introduction to oil recovery in reservoir
- Recovery mechanisms in reservoir
- Black oil fluid phase behavior
- Material balance in oil reservoir
- Reserve estimation
- Review of relative permeability
- Review of capillary pressure

Day 2:

- Review of SCAL and CCAL experiments
- Laboratory measurement of relative permeability
- Laboratory measurement of capillary pressure
- Common PVT tests

Day 3:

- Immiscible displacement
- Fractional flow equation
- Buckley-Leverett theory
- Input to numerical simulator

Day 4:

- All about unconventional reservoirs
- Naturally fractured reservoirs
- Heavy oil reservoirs

Day 5:

- Application of different EOR schemes and benefits

Note: In addition of class exercise, many examples will also be covered during the course.

INSTRUCTOR

Dr. Hassan Karimaie has more than 25 years of experience in upstream oil and gas industry. He has carried out numerous reservoir studies on various reservoirs in Middle East, Europe and Africa and thought several courses at NTNU, and other universities. He is an expert with vast industrial exposure on model building using laboratory data, reservoir simulation, CO2 EOR and storage and enhanced oil recovery studies. His research interest include Special core Analysis (SCAL), CO2 EOR and storage, and unconventional reservoirs.

FUNDAMENTALS OF NATURAL GAS ENGINEERING (RES 401)

PetroTeach offers the course in fundamental concepts of natural gas engineering. This 5-day training course/ workshop will focus on the properties of natural gas, phase behavior fundamentals, qualitative and quantitative phase behavior, vapor liquid equilibrium, Equation of State (EOS) models, critical pressure and temperature determination, natural gas processing, gas gathering and transport installation, natural gas resources.

DESIGNED FOR

The course is designed for petroleum engineers with basic knowledge and experience in petroleum engineering. The objective is to establish a foundation for petroleum engineers to be able to participate in the natural gas engineering production and processes. The course will provided fundamentals of natural gas, production, and purification techniques.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- The natural gas fundamentals.
- To calculate the properties of natural gas.
- The importance of natural gas for economy.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Apr	2490 €
Online	17 - 21 Aug	2490 €
Kuala Lumpur	9 - 13 Mar	4990 €
Mumbai	14 - 18 Dec	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 5-day training course/ workshop will focus on the properties of natural gas, phase behavior fundamentals, qualitative and quantitative phase behavior, vapor liquid equilibrium, Equation of State (EOS) models, critical pressure and temperature determination, natural gas processing, gas gathering and transport installation, natural gas resources.

COURSE OUTLINE

Day 1:

- Introduction to natural gas engineering
- Properties of natural gas
- Compressibility factor, density, etc.

Day 2:

- Coefficient of isothermal compressibility
- Viscosity of gas
- Fundamentals of phase behavior
- Vapor and liquid equilibrium
- Flash calculations

Day 3:

- Viscosity of gas Fundamentals of Phase Behavior
- Vapor and Liquid Equilibrium
- Flash Calculations

Day 4:

- Natural gas processing
- Gas gathering and transportation
- Flow assurance issues
- Gas hydrates
- Corrosion issues in pipelines

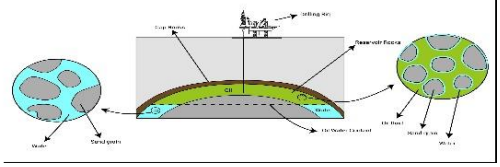
Day 5:

- Coal bed methane
- Natural gas hydrate
- Shale gas
- Current technology for shale gas exploration and production
- LNG: Production and utilization, Issue and challenges to enhance supply of natural gas

INSTRUCTOR

Professor Jitendra S. Sangwai is currently working as a Professor in the Petroleum Engineering Program, Department of Ocean Engineering at Indian Institute of Technology Madras, Chennai, India. He has about 13 years of experience in academics and industry. He obtained M.Tech. and Ph.D. in Chemical Engineering from IIT Kharagpur and IIT Kanpur, respectively. He gained industrial and research experience in an upstream oil and gas industry, Schlumberger dealing with flow assurances issues and on several commercial projects on reservoir fluid characterizations. He published over 80 peer reviewed journal papers and 70 papers in conferences of international repute. He filed/ holds 13 patents in the field of gas hydrates, flow assurance and enhanced oil recovery.

FLUID FLOW IN POROUS MEDIA AND ITS APPLICATION IN RESERVOIR ENGINEERING (RES 402)



The primary focus for the course is to provide the attendees with gained knowledge and experience related to fluid flow in porous media and its applications in the Oil and Gas industry.

DESIGNED FOR

The course is designed for Petroleum Engineers, Hydrogeology Engineers, Geologists, Petrophysicists, Geo-modelers, Reservoir Engineers Management and Simulation.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The learning objective of the top-most level content of the course are:

- Fundamental Properties of Porous Media
- Mathematical Treatment of Engineering Problems.
- Fundamental of Single-Phase Flow in Porous Media.
- Fundamental of Two-Phase Flow in Porous Media.
- Convective-Dispersive Flow in Porous Media.

REGISTRATION

Registration is now OPEN!

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2026 Schedule and Tuition

Online	12 - 16 Jan	2490 €
Online	17 - 21 Aug	2490 €
Amsterdam	20 - 24 Jul	4990 €
Accra	26 - 30 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The process of flow through porous media is of interest to a wide range of engineers and scientists, in addition to politicians and economists who recognize the importance of groundwater flows and a variety of oil recovery (primary, secondary, and ternary) processes. The main objective of this course is to present the mathematical relationships that are designed to describe the flow of the reservoir fluids through reservoir rocks. The mathematical forms of these relationships will vary depending upon the characteristics of the porous media such as the porous heterogeneity and wettability conditions. The mechanism of some enhanced oil recovery methods and how such mechanisms and permeable media characteristics can influence on the oil recovery improvement will be demonstrated.

COURSE OUTLINE

Day 1:

- Porosity
- Permeability
- Wettability and Capillary pressure
- Relative Permeability

Day 2:

- The expression of the problem in mathematical language
- The appropriate mathematical formulation
- The interpretation of the results
- Analysis of Important Oil and Gas Engineering Processes

Day 3:

- Fundamental Equation of Filtration
- Equation of State
- Equation of continuity
- Special Forms of the Equation of Filtration
- Real and Ideal Gases
- Boundary and Initial Conditions

Day 4:

- Steady State Filtration
- Non-Steady State Filtration in Infinite Acting Systems
- Dimensionless Variables
- Non-Steady State Filtration in a Finite System
- Boundary conditions
- Non-Steady State Filtration in Linear System

Day 5:

- Equation of Two-Phase Filtration
- BUCKLEY-LEVERETT Solution
- Influence of Gravity and Capillary Force
- Determination of Effective Capillary Pressures for Porous Media from Imbibition/ Drainage Data
- Two-phase flow in gas condensate reservoirs
- Miscible Displacement in Porous Media
- Diffusion/Dispersion in porous Media

INSTRUCTOR

Dr. Zaman Ziabakhsh Ganji has accumulated +12 years of reservoir engineering experience in research at National Iranian Oil Company (NIOC) in Iran, VU University Amsterdam and TU Delft. He worked on fluid flow and PVT modelling of several oil fields in Middle East, pure and impure CO2 storage into a depleted hydrocarbon reservoir, thermodynamic modeling, and reactive transport modeling in the reservoir rock.

NATURAL GAS ENGINEERING (RES 403)

The Natural Gas Engineering course is a comprehensive training program which covers most relevant topics of natural gas. Although some reservoir engineering techniques in oil wells can be adapted for gas wells, there are technical and operational differences between oil wells and gas wells. The course will provide participants with in-depth knowledge on natural gas composition and phase behavior, well testing of gas reservoirs and fundamentals of gas injection in oil reservoir.

DESIGNED FOR

The course is designed for Petroleum Engineers with basic knowledge and experience in fluid flow in the porous media, PVT, and basic reservoir engineering mainly on the gas injection.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Properties and phase behavior of natural gas.
- Gas flow in wellbores.
- Fundamentals of gas flow in porous media.
- Material Balance Calculations (MBC) in gas wells.
- Pressure-Transient Analysis (PTA) in gas wells.
- Decline Curve Analysis (DCA) in gas wells
- Reservoir simulation.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	4 - 5 May	1070 €
Online	7 - 8 Oct	1070 €
Accra	16 - 17 Apr	2490 €
Accra	2 - 3 Sep	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course is designed to provide fundamental background in reservoir engineering tailored to gas fields. The engineer needs to know the underlying fundamentals of the models to effectively deal with reservoir engineering challenges applicable to gas wells. In this course, participants will acquire relevant skills to build and use practical reservoir models to solve problems distinct to gas wells.

COURSE OUTLINE

- Introduction to Applied Reservoir Engineering
- Rock and Fluid Properties
- Volumetric Reserve Estimation
- Material Balance in Petroleum Reservoir
- Well Testing
- Fluid flow: Well productivity
- Aquifer influx
- Fluid displacement
- Coning and cusping
- Reservoir mechanisms
- Field development planning
- Production forecasting using decline curves
- Reservoir simulation

INSTRUCTOR

Dr. Yen Adams Sokama-Neuyam is a lecturer in the Department of Petroleum Engineering, Kwame Nkrumah University of Science and Technology (KNUST), Ghana. He has about seven 10 years research experience from the University of Stavanger, Norway, where he has worked as an Assistant Professor and Research Fellow. He has worked with international companies such as NORCE, Equinor and PGNiG Upstream in major research projects. He is an expert in Well Deliverability, Formation Damage, Flow Assurance, IOR and CCS. Dr. Yen holds a Ph.D. and MSc. degrees in Petroleum Engineering from the University of Stavanger and a BSc. Degree in Petroleum Engineering from KNUST.

APPLIED RESERVOIR ENGINEERING (RES 404)

PetroTeach offers 5-days Applied Reservoir Engineering course to address most important parameters facing on daily basis for reservoir engineers. Attendees will be taught the most relevant topics in reservoir engineering such as SCAL, PVT, Well Testing and Reservoir Simulation.

DESIGNED FOR

The course designed for engineers who work on the classical rock-fluid and pressure transient data as well as reservoir simulation. It can also be very useful for those who cooperate in the field development projects like drilling engineers, geologists, petrophysicists, production engineers and reservoir managers..

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn on:

- Volumetric calculation and uncertainty analysis,
- Data integration, well modeling and nodal analysis,
- Tank model construction and perform material balance study,
- Numerical reservoir model construction and sensitivity analysis,
- Inflow performance, diffusivity equation, well testing, rate-time analysis,
- Material balance, immiscible displacement (waterflood)
- Drive mechanisms & evaluation techniques
- Darcy Law, Diffusivity Equation, Principles of Simulation
- IOR & EOR

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 6 Mar	2490 €
Online	3 - 7 Aug	2490 €
4990	2 - 6 Feb	4990 €
Paris	19 - 23 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course consists of two parts: (1) the classical reservoir engineering and (2) the advanced reservoir engineering aspects. The first part focuses on the reservoir rock descriptions, fluid characterization (PVT), resource and reserve classifications, well performance, reservoir drive mechanisms and evaluation techniques. The second part elaborates on data integration, reservoir model construction, history matching, sensitivity analysis as well as IOR & EOR Concerns in Field Development and Reservoir Management.

COURSE OUTLINE

Day 1: Introduction

- Reservoir description, rock and fluid properties
- Resource and Reserves Definitions, Probabilistic Estimates, Estimation Techniques.
- Tutorial: building a volumetric calculation model and perform uncertainty analysis.

Day 2: Well Performance

- Inflow Performance, Diffusivity Equation, Well Testing, Rate-Time Analysis.
- Tutorial: building a well model and perform nodal analysis.

Day 3: Drive mechanisms and evaluation techniques

- Material balance (tank model)
- Immiscible Displacement (waterflood)
- Tutorial: building a material balance model and perform sensitivity analysis

Da 4: Reservoir simulation

- Darcy Law, y Diffusivity Equation, Principles of Simulation
- Tutorial: building a simple reservoir model and perform sensitivity analysis.

Day 5: IOR/EOR

- IOR Categories
- IOR/EOR Screening and Analysis of Alternative Techniques,
- IOR & EOR Concerns in Field Development and Reservoir Management.

INSTRUCTOR

Dr. Kourosh Khadivi is a proficient petroleum engineer having experience in operation, research and consultancy environments with solid technical background in classical and analytical production data analysis, integrated asset modeling, flow assurance, well & reservoir performance study, well integrity, artificial lift methods, field development and data acquisition planning, economical evaluation, screening IOR/EOR methods, production optimization and reservoir management. He has worked with PETRONAS Research during 2011-2016 and contributed in several Gas EOR and WAG optimization projects for major Malaysian Fields. He has proven records in the integrated fracture network characterization, comprehensive sieve analysis for designing sand control devices and numerical pressure transient analysis. He holds MSc and PhD degrees in Petroleum Engineering and has developed three tools for “Ensemble Base-Coreflood Modeling”, “Production Optimization” and “Numerical pressure transient analysis (NPTA)”.

INTRODUCTION TO PETROLEUM ENGINEERING (RES 405)

PetroTeach offers 5-days course on Introduction to Petroelum Engineering to address most important parameters facing on daily basis for petroleum engineers.

DESIGNED FOR

The course designed for engineers who work on the classical rock-fluid and pressure transient data as well as reservoir simulation. It can also be very useful for those who cooperate in the field development projects like drilling engineers, geologists, petrophysicists, production engineers and reservoir managers..

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn on:

- Main disciplines of petroleum engineering and their functions.
- Subsurface data: sources and methods of acquisition, and their applications.
- The roles of data integration, well-reservoir modeling and field development planning.
- General workflow of undertaking drilling and field development projects.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	16 - 20 Mar	2490 €
Online	10 - 14 Aug	2490 €
Oslo	9 - 13 Feb	4990 €
Paris	5 - 9 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course introduces main disciplines of petroleum engineering and their functions including Geophysics, Geology, Petrophysics, Drilling, Well Completion, Classical Reservoir Engineering, Reservoir Simulation and Field Development Planning. Subsurface data acquisition methods like Coring, Sampling, Well Logging and Well Testing are elaborated in the practical ways. It also provides some information relevant to the associated activities like decision making strategy, economic evaluation, risk & uncertainty analysis and management and so on. In fact, it is a useful tour over drilling and field development projects as well.

COURSE OUTLINE

Day 1: Introduction

- Introduction: Upstream Activities,
- Decision Stages, Risk & Uncertainties Management,
- Economic Evaluation
- Exploration: Geology & Geophysics (G&G)

Day 2: Formation evaluation

- Petrophysics,
- Coring and Fluid Sampling,
- Well Logging and
- Well Testing

Day 3: Drilling engineering

- Drilling Technology,
- Systems: Circulation, BHA, Mud, BOP
- Well Completion,
- Drilling Optimization

Day 4: Production Technology

- Perforation, Stimulation, Clean up,
- Depletion Scenarios,
- Artificial Lift Methods,
- Flow Assurance

Day 5: Field development planning

- Reservoir engineering,
- Reservoir Simulation,
- Reservoir Management and
- Production Optimization

INSTRUCTOR

Dr. Kourosh Khadivi is a proficient petroleum engineer having experience in operation, research and consultancy environments with solid technical background in classical and analytical production data analysis, integrated asset modeling, flow assurance, well & reservoir performance study, well integrity, artificial lift methods, field development and data acquisition planning, economical evaluation, screening IOR/EOR methods, production optimization and reservoir management. He has worked with PETRONAS Research during 2011-2016 and contributed in several Gas EOR and WAG optimization projects for major Malaysian Fields. He has proven records in the integrated fracture network characterization, comprehensive sieve analysis for designing sand control devices and numerical pressure transient analysis. He holds MSc and PhD degrees in Petroleum Engineering and has developed three tools for “Ensemble Base-Coreflood Modeling”, “Production Optimization” and “Numerical pressure transient analysis (NPTA)”.

PETROLEUM ENGINEERING FOR NON-PETROLEUM ENGINEERS (RES 406)

This short course is intended for participants in the Oil and Gas industry seeking basic knowledge and understanding of Petroleum Engineering.

DESIGNED FOR

The course is designed for Non-Petroleum Engineers or Scientists, Management, Executives and Field Support Staff working in oil and gas industry, New hires, Sales and marketing, IT services, Accounting.

COURSE LEVEL

- Beginner

LEARNING OBJECTIVES

The learning objectives of the top-most level content of the course are:

- Insight into the Petroleum Engineering Principles.
- Tools and operations involved in oil and gas industry.
- Basic geology as related to oil and gas reservoirs.
- Reservoir fluid and rock properties.
- Important of Reservoir & Well Drilling.
- Production and Recovery.
- Fundamentals of drilling, well.
- Completions and production operations.
- Basic concepts of primary and enhanced recovery operations.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	9 - 13 Mar	2490 €
Online	14 - 18 Sep	2490 €
London	12 - 16 Jan	4990 €
Kuala Lumpur	26 - 30 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course is designed to provide non-engineering petroleum industry technical professionals with a thorough overview of most key aspects of petroleum engineering technology and its applications.

COURSE OUTLINE

Day 1: Introduction - Exploration

- Introduction to Petroleum Industry
- Origin of Petroleum
- Prerequisites for Hydrocarbon Accumulation
- Types of Hydrocarbon Reservoir
- Exploration Method of Oil & Gas Fields
- Reservoir Rock Properties
- Well log

Day 2: Drilling

- History of Drilling
- Drilling Types
- Drilling Rigs & Equipment
- Drilling Bit Types & Application
- Drill String & Equipment
- Drilling Fluids
- Casing

Day 3: Reservoir

- Fundamentals of Reservoir Engineering
- Reservoir Fluid Properties
- Reservoir types & Reservoir Drive Mechanism
- Hydrocarbon Reserve Estimation
- Reservoir Modeling and Simulation
- Well Testing

Day 4: Production

- Well Completion Types
- Perforation
- Well Stimulation, Acidizing, Hydraulic Fracturing
- Artificial Lift

Day 5: Enhanced Oil Recovery

- Introduction to primary, secondary and tertiary recovery
- EOR with Gas Injection
- Chemical EOR
- Thermal EOR
- Enhanced gas recovery

INSTRUCTOR

Dr. Babak Moradi has accumulated over 15 years of reservoir and petroleum engineering experience. Babak started in 2006 as reservoir engineering in Iranian Central Oil Company (ICOFC) in Iran where he worked on 10 onshore fields. He joined to TENCO (E&P company) in 2016 to Manage a team of over 30 engineers and geoscientists to assess the FDP of two non-operated offshore HPHT carbonate gas fields and two giant onshore operated carbonate oil fields in the Middle East. He went to Malaysia on 2019 and started working for PETRONAS as senior reservoir engineer to Lead a team of engineers and geoscientists to appraise & develop four sandstone offshore non-operated and operated oil fields. IOR/EOR optimization in a giant offshore sandstone operated field and production data analysis in an offshore sandstone field. Currently he is working with PETROXIN Ltd in London as consultant reservoir engineer to perform reservoir simulation and prepared the appraisal and production well targets and depletion plan including bottlenecking and network analysis, Water flood optimization to achieve the maximum recovery of economic hydrocarbons and minimize the greenhouse gas emissions in the North Sea.

ADVANCED CORE ANALYSIS (RES 407)

PetroTecah is pleased to announce this intensive course which is a unique opportunity for those who want to learn both theoretical and experimental aspects of core analysis. The course will address a wide variety issues of core analysis and help to reservoir engineers for better decision and analysis of SCAL data.

DESIGNED FOR

The course has been designed for those who would like to master Routine and Special Core Analysis (RCAL & SCAL), both theoretical and experimental, and implement it to reservoir simulator. Junior and senior staff in reservoir engineering and geology discipline from industry and laboratory engineers are welcome to attend the course.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Fundamentals and advance theory of core analysis.
- Laboratory techniques to conduct core experiments.
- How to prepare and evaluate standard core analysis report.
- Quality control of core analysis results.
- Application of core analysis result to reservoir model.
- Role of core data in reservoir modelling process.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Jul	2490 €
Online	5 - 9 Oct	2490 €
Dubai	1 - 5 Jun	4990 €
Kuala Lumpur	7 - 11 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This comprehensive course for SCAL is designed to fill the gaps in reservoir engineering expertise from lab to field. The course is covering theoretical part of the Special Core Analysis. Application of SCAL data in reservoir simulation model and related challenges will also be discussed in detail. Reservoir engineers who are working in the industry can choose to participate in the first topic or the entire program.

COURSE OUTLINE

Day 1: All about CCAL

- Conventional Core Analysis (CCAL)
- Sample selection, Porosity, Permeability, Klinkenberg Effect
- Fluid Saturation Measurement, Rock Compressibility
- Introduction to SCAL
- All about Wettability: Concepts, Wettability Restoration
- Measurement Techniques, Amott, USBM, etc.
- Resistivity and Archie Coefficients

Day 2: Capillary Pressure

- All about Capillary Pressure
- Hassler-Brunner and Hagoort Method
- J-function and Hysteresis of Capillary Pressure

Day 3: Relative permeability

- Displacement Theory in Porous Media
- Steady and Unsteady State Relative Permeability Measurement
- Water-oil and Gas-oil Relative Permeability
- How to Analyse and Evaluate Relative Permeability Data

Day 4: Application of CCAL to RSM

- Role of Core Data in Reservoir Modelling Process
- Core & Log Data Relationship.
- Variability of Reservoir Rock
- Classification of Reservoir Rock
- Permeability Data Assessments
- Reservoir Permeability
- Reservoir Rock Functions Determination

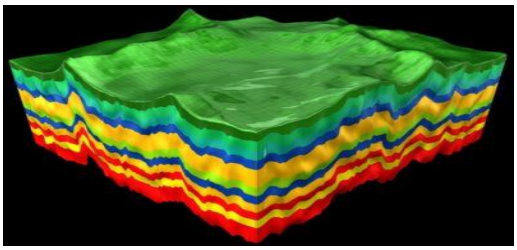
Day 5: Application of SCAL to RSM

- SCAL Data Collection
- Preparing SCAL Data Inventory & Data Appraisal
- Reconciliation of SCAL Data (SF) to the Same Base
- Areas of Concern of Using Core-Derived SF in RSM
- Accommodation of Data to Reservoir Condition
- Assign SCAL Data to Rock Types
- Saturation Functions by Published Correlations
- Assign Existing SCAL Data to Rock Types and QC.
- Propose Complete Set of KR Curves for All Rock Types

INSTRUCTOR

Nabi Mirzaee is the upstream studies advisor providing consulting services in Petroleum/Reservoir Engineering with over 35 years of experience in reservoir engineering/simulation, field development planning, and training. He is experienced in various types of hydrocarbon accumulations including conventional oil, gas, gas-condensate, heavy oil, carbonate, andclastic reservoirs. Nabi is expert in reservoir engineering/ simulation, history matching, rock typing; wettability; well planning; preparing field development plans; and Training. Nabi served as technical advisor to exploration and production companies and he is conversant with peer review of field development studies and proposals.

ADVANCED TOPICS IN RESERVOIR MODELLING (RES 408)



PetroTeach offers five days course in Advanced Topics in Reservoir Modelling. The course is a tacit Knowledge and experience transfer to meet daily responsibilities of the engineers in charge. The course would add gained knowledge and experience of about 35 years covering onshore and offshore fields and help the attendees to better monitor and manage their assigned responsibilities of reservoir modelling.

DESIGNED FOR

The course is designed for reservoir/ simulation engineers, petrophysicists, geologists, and geomodelers, with basic knowledge and experience in reservoir modelling. This course illustrates the role of team working and close collaboration among geosciences, reservoir engineering, and simulation disciplines.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The participants will learn:

- Rock typing Techniques.
- Analogy of Rock Typing Methods.
- Unification of Rock Types with Facies.
- Rock Typing in Reservoir Engineering.
- Application of Rock Types in Reservoir Simulation.
- Guidelines for Rock Typing in Reservoir Simulation.
- Introduction to Model Initialization Tips and Tricks.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	11 - 15 May	2490 €
Online	19 - 23 Oct	2490 €
Dubai	13 - 17 Apr	4990 €
Kuala Lumpur	7 - 11 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The training course covers important aspects in the field of reservoir modelling. The plan is to devise highly professional and advanced guidelines to link and bridge between geology, petrophysics, and dynamic reservoir modelling. The course contains three main topics:

1. Applied Rock Typing for Reservoir Simulation (Days 1 & 2)
2. Geological Model Validation for Reservoir Simulation (Days 3 & 4)
3. Determination of Reservoir Initial State for Reservoir Simulation (Day 5)

COURSE OUTLINE

Day 1:

- RTyping Techniques
- Rock Quality Index-GHE
- RQI and Flow Zone Index (FZI)
- Rock quality Index-DRT
- RQI and Disrict Rock Type (DRT)
- Hydulic Flow Unit (HFU)
- Winland's R35 Approach
- Electrofacies Determination
- Classification ock by Electrofacies

Day 2:

- Analogy of Rock-Typing Methods
- Advantages of Electrofacies over other Methods
- Unified Rock typing in Geo-model & RSM
- Accommodation of Facies in RSM
- Application of Rock Types in Reservoir Simulation
- Guidelines for RockTyping in Reservoir Simulation

Day 3:

- Reservoir Modelling Workflow
- Geological Model Pre-Analysis
- Ties among Rock Properties
- Validation of Log-Derived Data
- Quality Control of Property Model

Day 4:

- Validation of SW by RE Methods
- Verification of Structural Components
- Structural Modelling & Model Strata
- Geological Correlations & X-Sections
- Compartments, Regions & Unconformities
- Validation of Original HCIP

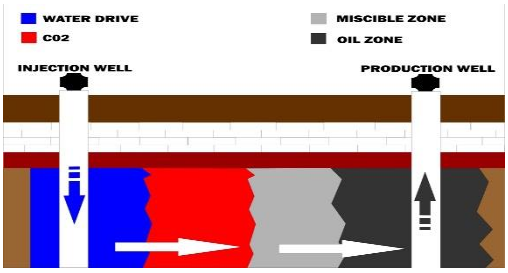
Day 5:

- All about Reservoir Pressure
- Reservoir Pressure Data and Assessments
- Determination of Reservoir Initial Pressure
- All about Contact Levels
- Contact Level Determination
- Unusual or Special Contact Cases

INSTRUCTOR

Nabi Mirzaee is the upstream studies advisor providing consulting services in Petroleum/Reservoir Engineering with over 35 years of experience in reservoir engineering/simulation, field development planning, and training. He is experienced in various types of hydrocarbon accumulations including conventional oil, gas, gas-condensate, heavy oil, carbonate, and clastic reservoirs. Nabi is expert in reservoir engineering/ simulation, history matching, rock typing; wettability; well planning; preparing field development plans; and Training. Nabi served as technical advisor to exploration and production companies and he is conversant with peer review of field development studies and proposals.

ADVANCED EOR GAS INJECTION (RES 409)



PetroTeach offers five days course in advanced EOR gas injection to petroleum engineers. The course is a tacit Knowledge and experience transfer for design and understand the gas injection process as an EOR method. The course would add gained knowledge and experience of more than 15 years covering reservoirs where the fluid composition is playing an important role and help the attendees to better monitor and manage their assigned responsibilities of EOR project.

DESIGNED FOR

The course is designed for Petroleum Engineers with basic knowledge and experience in fluid flow in the porous media, PVT, and basic reservoir engineering mainly on the gas injection.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

The participants will learn:

- The detailed overview of EOR-gas injection methods: Theory & Practice.
- Types of Recovery mechanisms involved during EOR-gas injection.
- The special PVT lab design for the EOR-gas injection in the field.
- The importance of the fluid model controlling the EOR processability and Immiscibility processes.
- Effect of compositional variations on the design of gas injection projects.
- The efficiency of the gas recycling in a gas condensate reservoir.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	20 - 24 Jul	2490 €
Online	7 - 11 Sep	2490 €
Dubai	15 - 19 Jun	4990 €
Stavanger	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course covers the detail knowledge of the EOR gas injection methods with several examples and class exercises. After the course, engineers will gain a solid understanding of the EOR gas injection techniques applied in conventional and unconventional reservoirs. Moreover, they can benefit from the instructor continuous supports to their related subjects and questions during or after the course.

COURSE OUTLINE

Day 1: Introduction

- General overview on case studies on EOR gas injection
- Screening criteria for gas based-EOR
- General term definition: Primary, Secondary and Tertiary
- Gas condensate reservoir
- Evaluation of the gas recycling in condensate reservoir:

Exercise: Gas condensate and gas recycling efficiency

Day 2: Gas Condensate Reservoirs

- SPE 3 problem: Gas condensate reservoir: gas recycling optimization
- Condensate reservoirs
- Mechanisms of EOR-gas injection in live oil
- Introduction to miscible displacement

Exercise: Condensate res10 - Miscible displacement

Day 3: Miscible Process

- Role of PVT properties controlling the miscibility process
- First contact and multi contact miscibility
- Special PVT lab design for miscible process

Exercise: Miscible displacement: modelling of PVT-lab design

Day 4: MMP and MME

- Type of multi contact miscibility
- MMP and MME concept
- Slim tube test

Exercise: MMP determination by simulation

Day 5: Compositional Gradients, WAG, and Steam Injection

- Compositional gradient reservoirs and variation of MMP and MME
- WAG theory and practice
- Quick overview on thermal process

INSTRUCTOR

Dr. Mohammad Ghasemi is a founder and CEO of iPESH company, a petroleum Eng. Consultancy company, with ~15 years of experience in variety of petroleum reservoir engineering projects. His recent research at Kuwait University includes the development of the flow pattern map for two phase flow in a heavy oil system, and integrated modeling of asphaltene deposition in vertical wells. Dr. Ghasemi has worked for Petrostreamz as a senior reservoir engineer, and for NISOC and PERA as a reservoir engineer. Ghasemi was involved in vast range of reservoir engineering projects. He has taught and assisted several courses in petroleum engineering namely EOR-gas injection, advanced PVT, fluid development, and production engineering. Dr. Ghasemi earned BS and MS degrees in petroleum engineering from the University of Petroleum Technology (PUT). He also holds master and PhD degrees from the University of Calgary and the Norwegian University of Science and Technology (NTNU), both in petroleum reservoir engineering.

PVT PROPERTIES OF RESERVOIR FLUIDS (RES 410)

PetroTeach offers the course to cover the introduction to the PVT modeling and petroleum properties with several examples and class exercises. It addresses those engineers with the basic knowledge in the fluid phase behavior and fluid characterizations. After the course, engineers will gain a good understanding of the PVT modelling and fluid properties of the petroleum mixtures.

DESIGNED FOR

The course is designed for petroleum engineers with basic knowledge and experience in fluid flow in the porous media, PVT, and basic reservoir engineering mainly on the gas injection. The objective is to establish a full work-flow to evaluate the phase behavior and PVT modelling analysis.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Phase behavior and volumetric calculations.
- Common and special PVT test designs.
- Fluid characterization of heavy ends
- Oil, gas and water properties.
- Types of fluid models.
- How gas injection process is affected by EOS model.
- Insight on Flow assurance (Hydrate and Asphaltene)

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	18- 22 May	2490 €
Online	3 - 7 Aug	2490 €
Stavanger	20 - 24 Apr	4990 €
Doha	26 - 30 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course covers the introduction to the PVT modelling and petroleum properties with several examples and class exercises. It addresses those engineers with the basic knowledge in the fluid phase behavior and fluid characterizations. After the course, engineers will gain a good understanding of the PVT modelling and fluid properties of the petroleum mixtures. Moreover, they can benefit from the instructor continuous supports to their related subjects and questions during or after the course.

COURSE OUTLINE

Day 1:

- Introduction, the course objectives and scope
- Introduction to thermodynamic applications
- Fluids and phase behavior for Multi Component System
- Reservoir fluid classifications

Exercise: Phase diagram and thermodynamic application

Day 2:

- Oil and gas properties
- Common PVT tests
- Fluid sampling

Exercise: Gas, oil properties and PVT tests

Day 3:

- History of cubic EOS models
- Two phase flash calculations
- Phase properties calculations
- Saturation pressure calculations
- Compositional gradient calculations
- Criteria for phase stability

Exercise: Two phase flash, saturation pressure and compositional variation with depth

Day 4:

- Heptane plus characterization & molar distribution
- Compositional model properties
- Black oil model properties
- Input to numerical simulator

Exercise: Black oil model properties and fluid characterization

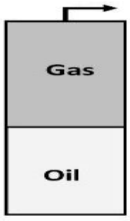
Day 5:

- Gas injection process
- Gas injection process & water properties
- Water & hydrate systems
- The importance of EOS model and applications
- Course summary

INSTRUCTOR

Dr. Mohammad Ghasemi is a founder and CEO of iPESH company, a petroleum Eng. Consultancy company, with ~15 years of experience in variety of petroleum reservoir engineering projects. His recent research at Kuwait University includes the development of the flow pattern map for two phase flow in a heavy oil system, and integrated modeling of asphaltene deposition in vertical wells. Dr. Ghasemi has worked for Petrostreamz as a senior reservoir engineer, and for NISOC and PERA as a reservoir engineer. Ghasemi was involved in vast range of reservoir engineering projects. He has taught and assisted several courses in petroleum engineering namely EOR-gas injection, advanced PVT, fluid development, and production engineering. Dr. Ghasemi earned BS and MS degrees in petroleum engineering from the University of Petroleum Technology (PUT). He also holds master and PhD degrees from the University of Calgary and the Norwegian University of Science and Technology (NTNU), both in petroleum reservoir engineering.

ADVANCED PVT AND EOS MODELLING (RES 411)



The course is a Tacit Knowledge and Experience Transfer to meet daily responsibilities of the Engineers in charge. The course would add gained knowledge and experience of about 15 years covering onshore and offshore fields and help the attendees to better monitor and manage their assigned responsibilities of Reservoir Monitoring and Management.

DESIGNED FOR

The course is designed for reservoir engineers, production and field engineers, process engineers, and researchers who are dealing with phase behavior and fluid properties, complex fluid system, EOR projects, reservoir simulations studies and flow assurance.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Handling PVT reports.
- Develop EOS Model.
- Design and analysis of PVT tests.
- Fluid Initialization using appropriate black oil tables.
- EOS Pseudoization and PVT Correlation.
- EOS conversion for reservoir simulators.
- Learning types of fluid models.
- Learning how Gas injection process is affected by EOS model.
- And some insight on Flow assurance (Hydrate and Asphaltene).

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	11 - 12 May	1070 €
Online	14 - 15 Aug	1070 €
Stavanger	16 - 17 Jan	2490 €
Doha	6 - 7 Apr	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Accurate EOS model and fluid characterization is essential for modeling Enhanced Oil Recovery (EOR) processes, depletion from near critical fluid systems and reservoirs with high degree of fluid heterogeneity. This course focuses on the A-to-Z EOS development procedures and covers all important topics related to PVT and Fluid characterization studies. After the course, Engineers will gain a good understanding of the PVT modeling and fluid properties of the petroleum mixtures. Moreover, they can benefit from the instructor continuous supports to their related subjects and questions during or after the course.

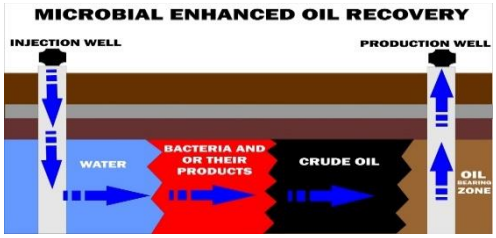
COURSE OUTLINE

- Fluid Sampling
- PVT Reports Descriptions
- Fluid Characterization Modeling
- PVT Experiments-Detailed Analysis
- PVT Correlations
- Full EOS Modeling
- EOS Pseudoization
- BO Tables
- Fluid Initializations
- EOS Conversion

INSTRUCTOR

Dr. Mohammad Ghasemi is a founder and CEO of iPESH company, a petroleum Eng. Consultancy company, with ~15 years of experience in variety of petroleum reservoir engineering projects. His recent research at Kuwait University includes the development of the flow pattern map for two phase flow in a heavy oil system, and integrated modeling of asphaltene deposition in vertical wells. Dr. Ghasemi has worked for Petrostreamz as a senior reservoir engineer, and for NISOC and PERA as a reservoir engineer. Ghasemi was involved in vast range of reservoir engineering projects. He has taught and assisted several courses in petroleum engineering namely EOR-gas injection, advanced PVT, fluid development, and production engineering. Dr. Ghasemi earned BS and MS degrees in petroleum engineering from the University of Petroleum Technology (PUT). He also holds master and PhD degrees from the University of Calgary and the Norwegian University of Science and Technology (NTNU), both in petroleum reservoir engineering.

FUNDAMENTALS OF ENHANCED OIL RECOVERY (RES 412)



PetroTeach offers the course in fundamental concepts in enhanced oil recovery. The course addresses the engineering aspects and design for different types of enhanced oil recovery including water-based and gas-based techniques. A full description of chemical and polymer flooding will be reviewed, and participants will be familiar with concepts and applications of thermal EOR.

DESIGNED FOR

The course is fundamental and designed for petroleum engineers with basic knowledge and experience in petroleum engineering. The objective is to establish a foundation for petroleum engineers to be able to participate in EOR project.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

- Displacement fundamentals and efficiency
- Comparative Performance of Different EOR Methods
- Water and gas based EOR, miscible EOR Processes
- Chemical and Polymer Flooding
- Thermal EOR
- Field case studies of different EOR projects

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	26 - 30 Jan	2490 €
Online	3 - 7 Aug	2490 €
Mumbai	16 - 20 Feb	4990 €
Bangkok	13 - 17 Jul	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Participants will learn about different enhanced oil recovery (EOR) methods, fundamental concepts, applications and challenges of each process. The course will primarily consider reservoir-engineering aspects of EOR using water-based and gas-based methods and screening criteria. Basic of water-based EOR methods such as miscible and immiscible injection will be discussed in detail. Special attention will be given to thermal EOR. Steam injection, Cyclic Steam Stimulation (CSS) and Steam Assisted Gravity Drainage (SAGD) injection, Cyclic Steam Stimulation (CSS) and Steam Assisted Gravity Drainage (SAGD) will be discussed in detail.

COURSE OUTLINE

Day 1: Introduction
- Introduction to types of EOR methods
- Reservoir engineering concepts for EOR
- Screening criteria and technical constraints
- Fundamentals of oil displacement

Day 2: Water Based EOR
- Review of water-based EOR
- Basic of water flooding
- Chemical and polymer flooding
- Rheology of polymer solutions
- Polymer adsorption and retention
- Micellar-polymer or micro emulsion flooding
- Field case review and exercise

Day 3: Gas Based EOR
- Introduction to thermal EOR
- Hot water injection & Steam properties
- Steam injection process
- Viscosity reduction and thermal expansion

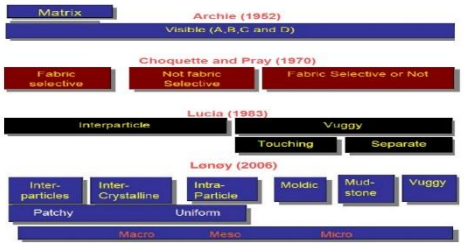
Day 4: Thermal EOR
- Introduction to thermal EOR
- Hot water injection & Steam properties
- Steam injection process
- Viscosity reduction
- Thermal expansion
- Heat losses in the reservoir and pipelines
- Prediction of steam flood performance
- Cyclic steam injection
- Marx langenheim model
- Gamaa's method
- Field case review

Day 5: Microbial EOR and Other Advanced EOR
- Introduction to thermal EOR
- Review of parameters affecting microbial EOR
- Review of field case MEOR
- Nanotechnology in EOR
- Low salinity EOR
- Review of all methods

INSTRUCTOR

Professor Jitendra S. Sangwai is currently working as Professor in the Petroleum Engineering Program, Department of Ocean Engineering at Indian Institute of Technology Madras, Chennai, India. He has about 13 years of experience in academics and industry. He obtained M.Tech. and Ph.D. in Chemical Engineering from IIT Kharagpur and IIT Kanpur, respectively. He gained industrial and research experience in an upstream oil and gas industry, Schlumberger dealing with flow assurances issues and on several commercial projects on reservoir fluid characterizations. He published over 80 peer reviewed journal papers and 70 papers in conferences of international repute. He filed /holds 13 patents in the field of gas hydrates, flow assurance and enhanced oil recovery.

APPLIED ROCK TYPING (RES 413)



Rock typing is an essential part of dynamic reservoir modelling. Rock types provide a distinction between different rock groups in contribution to fluid flow in the reservoir. Rock types take the prime role in the dynamic definition of the reservoir. Information given in this course helps to define rock types for reservoir simulation purpose in compliance with the geoscience.

DESIGNED FOR

The course is designed for Petrophysicist, Geologist, and Reservoir/ Simulation Engineers with basic knowledge and experience in rock typing and reservoir modelling.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

- Rock typing techniques and unification of rock types with facies
- Application of rock types in reservoir simulation
- Guidelines for rock typing in reservoir simulation
- Analogy of rock typing methods
- Quality control of core analysis results
- Application of core analysis result to reservoir model
- Role of core data in reservoir modelling process

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 2 Apr	1070 €
Online	3 - 4 Aug	1070 €
Dubai	23 - 24 Mar	2490 €
Kuala Lumpur	1 - 2 Oct	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Applied Rock Typing is an advanced course prepared as working guideline in reservoir engineering and simulation. This course illustrates the role of team working and close collaboration among geoscience and reservoir engineering and simulation disciplines in building reservoir simulation models. The objective is to establish coherency between facies determination in geoscience and definition and application of rock types in reservoir engineering and simulation. The course is associated with case studies taken from major full-field studies.

COURSE OUTLINE

Day 1:

- Rock typing techniques
- Rock quality index-GHE
- RQI and flow zone index (FZI)
- Rock quality index-DRT
- RQI and district rock type (DRT)
- Hydraulic flow units (HFU)
- Winland's R35 Approach
- Rock fabrics-lucia
- Electrofacies determination
- Classification by electrofacies

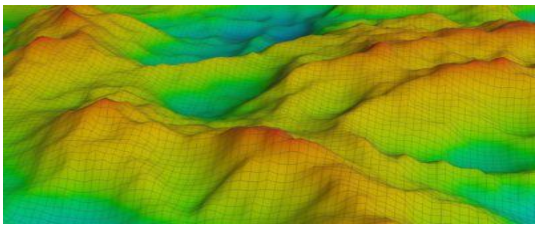
Day 2:

- Analogy of rock-typing methods
- Nature of rock typing methods
- Upscaling issues
- Characteristics of rock classification methods
- Advantages of electrofacies over other methods
- Unified rock typing in geo-model & RSM
- Upscaling facies
- Rock types in RES versus facies in geoscience
- Accommodation of facies in RSM
- Definition & quality control of rock types
- Rock typing in reservoir engineering
- Rock typing classical approach
- Rock typing modern approach
- Application of rock types in reservoir simulation
- Relative permeability and capillary pressure
- Rock permeability
- Relative permeability endpoints Other applications
- Guidelines for rock typing in reservoir simulation
- Extent of reservoir data for rock typing
- Challenges in rock typing using electrofacies
- Challenges of rock typing by other methods

INSTRUCTOR

Nabi Mirzaee is the upstream studies advisor providing consulting services in Petroleum/ Reservoir Engineering with over 35 years of experience in reservoir engineering/ simulation, field development planning, and training. He is experienced in various types of hydrocarbon accumulations including conventional oil, gas, gas-condensate, heavy oil, carbonate, and clastic reservoirs. Nabi is expert in reservoir engineering/ simulation, history matching, rock typing; wettability; well planning; preparing field development plans; and Training. Nabi served as technical advisor to exploration and production companies and he is conversant with peer review of field development studies and proposals.

GEOLOGICAL MODEL VALIDATION (RES 414)



PetroTeach offers two days course in geological model validation. The course is the integration of different aspects of the reservoir, including; structure, rock properties, fluid properties, and physical conditions, each of which is provided by different data types and disciplines. The focal point is having organic integration and consistency among different data types explaining the model.

DESIGNED FOR

The course is designed for Reservoir/ Simulation Engineers, Petrophysicists, Geologists, and Geomodelers, with basic knowledge and experience in reservoir studies and modelling.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

- Reservoir modelling workflow
- Geological model pre-analysis
- Validation of rock properties
- Verification of structural components
- Validation of original hydrocarbon in place
- Introduction to model initialization
- Tips and tricks

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

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2026 Schedule and Tuition

Online	7 - 8 May	1070 €
Online	5 - 6 Nov	1070 €
Dubai	23 - 24 Apr	2490 €
Kuala Lumpur	10 - 11 Dec	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Geological models are a product of integrated geosciences and reservoir engineering studies. Such models are the essential and the only integrated static platform for the conduct of dynamic reservoir simulation. Dynamic features of reservoir models are based on the static characteristics of geological models. Despite the strong impact of reservoir history matching parameters on providing different performances of the same geological model, they cannot change the nature of the static geological parameters. As such quality control of the geological model before starting the dynamic reservoir simulation is a must. In this course, reservoir-engineering methods are used to qualify and/ or validate different data types in geological models to start simulation of the reservoir. During the course, the applied methodologies are illustrated with case studies downloaded from rigorous reservoir studies .

COURSE OUTLINE

Day 1:

- Reservoir modelling workflow
- Geological Model Pre-Analysis
- Validation of Rock Properties
- Validation of Log-derived Data Methods
  - Box & Whisker Plots
  - Methodology
  - Application- Case Studies
- Validation of the Property Model
  - Introducing Property Modeling
  - Methodology
  - QC of Property Models- Case Studies
- Validation of Water Saturation Array
  - Water Saturation in Geological Model
- Validation of Irreducible Water Saturation

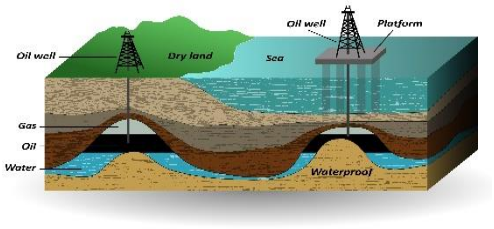
Day 2:

- Verification of Structural Components
  - Introducing Structural Modelling
  - Model Strata (Layers)
  - Cross-Sections
  - Geological Correlations
  - Faults, Compartments, Regions, Sectors
  - Pinch-outs & nconformities
- Verification of Original Hydrocarbon In place
  - Irreducible Zone
  - Transition Zone
- Reporting Original Hydrocarbon In place
- Reservoir Fluid In place Regions; etc
- introduction to Model Initialization
- Tips and Tricks-Overview

INSTRUCTOR

Nabi Mirzaee is the upstream studies advisor providing consulting services in Petroleum/ Reservoir Engineering with over 35 years of experience in reservoir engineering/ simulation, field development planning, and training. He is experienced in various types of hydrocarbon accumulations including conventional oil, gas, gas-condensate, heavy oil, carbonate, and clastic reservoirs. Nabi is expert in reservoir engineering/ simulation, history matching, rock typing; wettability; well planning; preparing field development plans; and Training. Nabi served as technical advisor to exploration and production companies and he is conversant with peer review of field development studies and proposals.

DETERMINATION OF RESERVOIR INITIAL STATE FOR RESERVOIR SIMULATION (RES 415)



The hydrocarbon is accumulated in the reservoir and reached equilibrium for a long time before being exploited. The first step in reservoir simulation is to introduce such state of the reservoir to the simulator. PetroTeach offers this two days unique course to provide information on how to determine of Reservoir Initial State for Reservoir Simulation.

DESIGNED FOR

The course is designed for reservoir/ simulation engineers, petrophysicists, geologists, and geomodelers, with basic knowledge and experience in reservoir studies and modelling.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

The participants will learn:

- Reservoir pressure basics.
- Reservoir pressure assessments.
- Determination of reservoir initial pressure.
- All about contact levels.
- Contact level determination.
- Unusual or special contact level cases.
- Equilibrium data for reservoir simulation.

REGISTRATION

Registration is now OPEN!

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2026 Schedule and Tuition

Online	13 - 14 Aug	1070 €
Online	2 - 3 Dec	1070 €
Dubai	11 - 12 Jun	2490 €
Stavanger	23 - 24 Jul	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

This course is a step-by-step guide for understanding, manipulation and working out the data leading to define the reservoir initial state to the reservoir model. The course is divided into three parts each serving one part of reservoir initial state determination. The first part is all about reservoir pressure data including data quality check, data assessment, and concatenation from different sources leading to define the reservoir initial pressure for the model. The second part deals with complete suite of contact level determination integrated with reservoir pressure determination; including single, multiple, tilted, and unusual contact level determinations. The last part concludes the course on providing all necessary data required by reservoir simulation model including reservoir pressure, contact levels, PC at contacts, and fluid related parameters to reservoir equilibrium, API, fluid ratios, saturation pressure and composition variations versus depth in the reservoir.

COURSE OUTLINE

Day 1: Determination of Reservoir Initial Pressure

- All about Reservoir Pressure
  - Reservoir Initial Equilibrium
  - Reservoir Pressure Profile
  - Fluid Contact Depths
  - Reservoir Pressure Assessments
  - Pressure Data from Different Sources
  - Compilation of Pressure data from different sources
  - Determination of Reservoir Initial Pressure

Day 2: Reservoir Fluid Contact Determination

- Types of Contact Levels
  - Preliminary Fluid Contact Identification
  - Contact Levels and Capillary Pressure
  - Contact Levels in Fractured Reservoirs
  - Contact Level Determination
  - Contact Levels Supported by Log Data and Sporadic Pressure Data
  - Unusual or Special Contact Cases
  - Multiple, tilted and paleo contacts
  - Trapped water or water pockets
  - Contact Determination in the Absence of Conclusive Data
  - Equilibrium Data for Reservoir Simulation
  - Initial pressure at datum, contact levels and PC at contact levels
  - API versus Depth All about Contact Levels
  - Composition versus Depth
  - Fluid Ratios versus Depth

INSTRUCTOR

Nabi Mirzaee is the upstream studies advisor providing consulting services in Petroleum/ Reservoir Engineering with over 35 years of experience in reservoir engineering/ simulation, field development planning, and training. He is experienced in various types of hydrocarbon accumulations including conventional oil, gas, gas-condensate, heavy oil, carbonate, and clastic reservoirs. Nabi is expert in reservoir engineering/ simulation, history matching, rock typing; wettability; well planning; preparing field development plans; and Training. Nabi served as technical advisor to exploration and production companies and he is conversant with peer review of field development studies and proposals.

RESERVOIR ENGINEERING OF FRCATURED RESERVOIRS (RES 416)

In addressing of importance of fractured reservoirs, PetroTeach offers this course focusing on reservoir engineering aspects of naturally fractured reservoirs. These reservoirs are challenging type of the oil reservoir, which needs special attention and treatment. Participants will learn fundamentals, well testing, EOR and modelling in Fractured Reservoirs.

DESIGNED FOR

The course is designed for Petroleum Engineers and reservoir engineers who are part of multidisciplinary team to characterize and evaluate of fractured reservoirs.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Fluid Flow in Fractured Reservoirs.
- Recovery Mechanisms in Fractured Reservoirs.
- EOR in Fractured Reservoirs.
- How to analyse well testing data.
- Gravity Drainage and it's role.
- Laboratory procedure for EOR in Fractured Reservoirs.
- Fractured Reservoir Models.

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	10 - 12 Aug	1740 €
Online	2 - 4 Nov	1740 €
Khartoum	6 - 8 Jul	3740 €
Accra	14 - 16 Dec	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

This 3-days course covers the different elements in the evaluation of naturally fractured reservoirs from reservoir engineering point of view. Examples of more than 10 Fractured Reservoirs and range of oil recovery will be discussed. The emphasis is on interpretation of well test data, EOR and practical experimental way for conducting laboratory experiment

COURSE OUTLINE

- Naturally Fractured Reservoirs: Definition and importance
- Differences Between Homogeneous and Fractured Reservoirs
- Examples of NFRs
- Geological Aspects of Fractured Reservoirs
- Performance Characteristics: production mechanisms, GOR, GOC, WOC, Water cut
- Recovery Mechanisms: Expansion, Imbibition, Convection and Diffusion
- Porosity and Permeability Modelling
- Single Fracture Development
- Well Testing in Fractured Reservoirs
- Pressure Transient Flow, Storativity and Interporosity Flow Parameters ω and λ
- Well Test Characteristics and analysis
- Matrix-fracture fluid exchange
- Convection and Diffusion in Fractured Reservoirs
- Capillary vs. Gravity Effect, Combined Gravity and Capillarity
- Gravity Drainage mechanism in Fractured Reservoirs
- Single Block and Multiple Block
- Capillary Continuity
- EOR in Fractured Reservoirs
- Equilibrium vs. Non-Equilibrium Gas Injection in Fractured reservoirs
- Designing laboratory protocol for a successful EOR experiment
- Water injection in Fractured Reservoirs: Co-Current vs. Counter Current imbibition
- Fractured Reservoir Models: Dual Porosity vs. Dual Permeability Model
- Dual Porosity Simulation of Fractured Reservoirs
- Case Studies

INSTRUCTOR

Dr. Hassan Karimaie has more than 25 years of experience in upstream oil and gas industry. He has carried out numerous reservoir studies on various reservoirs in Middle East, Europe and Africa and thought several courses at NTNU, and other universities. He is an expert with vast industrial exposure on model building using laboratory data, reservoir simulation, CO2 EOR and storage and enhanced oil recovery studies.

HEAVY OIL RESERVOIR ENGINEERING (RES 417)

This course will develop your understanding of the fundamentals of heavy oils and related oil recovery methods. Thermal and non-thermal enhanced oil recovery schemes will be discussed and participants will learn about steam engineering design, CSS, CHOPS, VAPEX and SAGD.

DESIGNED FOR

The course is designed for reservoir engineer working in heavy oil projects.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Thermodynamics of Heavy oil and Steam.
- Heat Transfer in Oil reservoir.
- Mechanism of Thermal Oil Recovery.
- How to design thermal recovery EOR such as CSS, Hot Water Injection, CHOPS, and SAGD.

REGISTRATION

Registration is now OPEN!

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2026 Schedule and Tuition

Online	23 - 24 Jul	1070 €
Online	19 - 20 Nov	1070 €
Khartoum	22 - 23 Jan	2490 €
Accra	9 - 10 Jun	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 2-days course covers the different elements in the evaluation of naturally fractured reservoirs from reservoir engineering point of view. Examples of more than 10 heavy oil Reservoirs and range of oil recovery will be discussed. The emphasis is on interpretation of well test data, EOR and practical experimental way for conducting laboratory experiment and simulation of fractured reservoirs. The course accompanied by examples and case histories to reinforce the key concepts, methods and results.

COURSE OUTLINE

Day 1:

- Introduction to Heavy Oil Reservoirs
- Heavy Oil resource, Classification and Properties
- Heat Transfer in Oil reservoir
- Heat Transfer During Steam or Hot Water injection
- Modes of Heat Transfer:
- Wellbore Heat Loss
- Marx-Langenheim Model for Reservoir Heating
- Cyclic Steam Stimulation (CSS)
- Cold Heavy Oil Production with Sand (CHOPS)
- Solvent-Injection Recovery Processes
- Hot Water Injection
- VAPEX

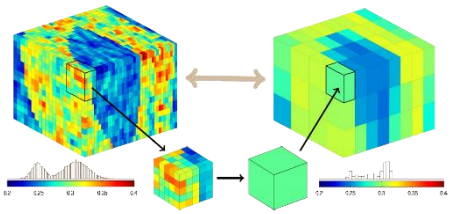
Day 2:

- All About Thermodynamics of Steam
- Criteria for Selection of Steam Flood
- Steam assisted Gravity Drainage (SAGD)
- Methodolgy, heating chamber
- Average Oil saturation
- Cumulative and rate of Drainage
- Steam Zone Growth
- Analytical Models for SAGD Performance Estimation
- In-Situ Combustion (ISC), theory and application
- Methodology, forward and reverse combustion
- Dry and wet combustion
- Zone distribution
- Case Studies

INSTRUCTOR

Dr. Hassan Karimaie has more than 25 years of experience in upstream oil and gas industry. He has carried out numerous reservoir studies on various reservoirs in Middle East, Europe and Africa and thought several courses at NTNU, and other universities. He is an expert with vast industrial exposure on model building using laboratory data, reservoir simulation, CO2 EOR and storage and enhanced oil recovery studies.

PRACTICAL APPLICATION OF GEOSTATISTICS IN RESERVOIR SIMUALTION (RES 418)



Role of geostatistics in petroleum engineering is crucial. Application of this discipline requires that geoscience experts and reservoir engineers working together. This cooperation allows each one to contribute fully in reservoir model creation. This three day course will focus on modifying upscaling of fine grid model.

DESIGNED FOR

The course is designed for geologists and reservoir engineers who struggle to match volumes between the geological and simulation models.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

The learning objectives of this course are:

- An understanding of the benefits of upscaling.
- An ability to make intelligent decisions during the static modeling workflow that will impact on the efficiency of upscaling.
- An appreciation of the theoretical limitations of upscaling and the practical limitations of upscaling algorithms in commercial modeling programs.
- A problem-solving and critical-thinking approach to modeling to improve upscaling effectiveness.

REGISTRATION

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For more details and registration please send email to: register@petro-teach.com

2020 Schedule and Tuition

Online	1 - 3 Jul	1740 €
Online	4 - 6 Nov	1740 €
Abu Dhabi	14 - 16 Jan	3740 €
Amsterdam	5 - 7 Aug	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The aim of this course is to provide the skills needed to understand the process of upscaling a static reservoir model to a coarse model suitable for flow simulation. The course will discuss the interaction between static and dynamic modeling and strategies that will improve the quality of the upscaled model for different development scenarios.

COURSE OUTLINE

Day 1: Using wireline data

- Introduction to upscaling
- Discussion of typical upscaling problems
- Identification of user-specific issues
- Upgridding, fundamental constraints of scale and grid design
- Upscaling static properties

Day 2: Using mapping data

- Revision and exercise
- Upscaling dynamic properties
- Discussion on why we don't upscale porosity or permeability
- Upscaling quality control

Day 3: Interfacing with MS Office

- Case studies and horror stories
- The 'un-upscalable grid'
- Practical aspects of upscaling with commercial software

INSTRUCTOR

Professor Stephen Tyson is the Chair Professor in Petroleum Engineering at Universiti Teknologi Brunei and is responsible for the development of teaching and research in this area. Previously he was the Chair of Subsurface Modeling at the Centre for Coal Seam Gas and Director of the Centre for Geoscience Computing in the School of Earth Sciences at The University of Queensland. He has worked in reservoir characterization and modeling in the oil industry for more than 30 years in both conventional and unconventional reservoirs. He has worked extensively in the Asia-Pacific and Australia. His current research interests are in model validation, verification and acceptance criteria for both static and dynamic models, upscaling, uncertainty modeling and non-linear geostatistics. He is also an honorary professor in Petroleum Engineering at the University of New South Wales and EAGE instructor.

RESERVOIR CHARACTERIZATION (RES 419)

Reservoir characterization is an important step during the study of oil fields, monitoring, reservoir management and production optimization. The aim of this 5-day course is to provide the skills needed to complete an integrated reservoir characterization study.

DESIGNED FOR

The course is designed for geologists and geophysicists.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

Participants will have gained the following skills:

- An understanding of the limitations of static modeling.
- An ability to determine appropriate modeling strategies for different exploration and development problems.
- Develop a problem-solving and critical-thinking approach.

REQUIREMENTS

- A comfortable ability to handle algebra, arithmetic and very basic statistics. The math presented in this course is not advanced but there are formulas and equations.
- A basic knowledge of Excel is needed. Course participants need to be comfortable entering formulas and creating graphs in Excel.
- Upstream petroleum exploration and production knowledge is also useful.

REGISTRATION

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2026 Schedule and Tuition

Online	20 - 24 Jul	2490 €
Online	19 - 23 Oct	2490 €
Stavanger	8 - 12 Jun	4990 €
Dubai	7 - 11 Sep	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course presents underlying assumptions and the science behind the development or reservoir models and as such provides the course participants with a set of skills that complement modeling workflows in commercial software. Care is taken to help participants understand the difference between description and characterisation, in the context of modelling and the utility of the models that are created using different approaches. Characterization, in the context of modelling and the utility of the models that are created using different approaches.

COURSE OUTLINE

Day 1:

- Overview of Reservoir Characterization
- Data Sources, Quality and Analysis
- Types of data, scales of measurement and uncertainty in received data
- A short review of probability including Bayes theory
- Univariate and bivariate statistics
- Measuring and modeling spatial continuity of variables

Day 2:

- Construction of modelling framework
- Mapping & Contouring
- Handling faults in reservoir models
- Different grid types
- Design and their relation to reservoir features
- Grid selection for appropriate modelling

Day 3:

- Geostatistical Estimation
- Geostatistical Concepts
- Kriging and its limitations and assumptions
- Estimation of Dependent Variables

Day 4:

- Geostatistical Simulation
- A comparison of simulation and estimation
- Sequential Indicator Simulation
- Object Modelling

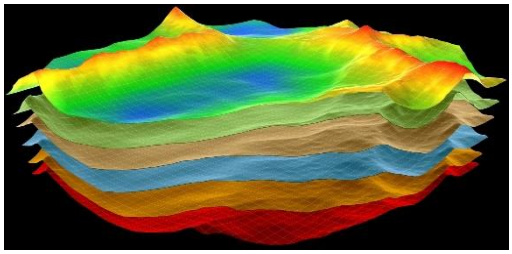
Day 5:

- Upgrading and Upscaling
- Grid correspondence
- Upscaling static properties
- Upscaling dynamic properties

INSTRUCTOR

Professor Stephen Tyson is the Chair Professor in Petroleum Engineering at Universiti Teknologi Brunei and is responsible for the development of teaching and research in this area. Previously he was the Chair of Subsurface Modeling at the Centre for Coal Seam Gas and Director of the Centre for Geoscience Computing in the School of Earth Sciences at The University of Queensland. He has worked in reservoir characterization and modeling in the oil industry for more than 30 years in both conventional and unconventional reservoirs. He has worked extensively in the Asia-Pacific and Australia. His current research interests are in model validation, verification and acceptance criteria for both static and dynamic models, upscaling, uncertainty modeling and non-linear geostatistics. He is also an honorary professor in Petroleum Engineering at the University of New South Wales and EAGE instructor.

BEST PRACTICE FOR UPSCALING IN RESERVOIR SIMULATION (RES 420)



PetroTeach offers 3-day course on Upscaling in Reservoir Simulation. The course will discuss the interaction between static and dynamic modeling and strategies that will improve the quality of the upscaled model for different development scenarios. This 3-day course is designed to give the insight to geologists and geophysicists on how to solve the challenges on upscaling of reservoir model.

DESIGNED FOR

The course is designed for geologists and reservoir engineers who struggle to match fluid volumes between the geological and simulation models.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of this course are:

- An understanding of the benefits of upscaling.
- An ability to make intelligent decisions during the static modeling workflow that will impact on the efficiency of upscaling.
- An appreciation of the theoretical limitations of upscaling and the practical limitations of upscaling algorithms in commercial modeling programs.
- A problem-solving and critical-thinking approach to modeling to improve upscaling effectiveness.

REGISTRATION

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2026 Schedule and Tuition

Online	26 - 28 Aug	1740 €
Online	2 - 4 Sep	1740 €
Stavanger	3 - 5 Jun	3740 €
Abu Dhabi	14 - 16 Dec	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The aim of this course is to provide the skills needed to understand the process of upscaling a static reservoir model to a coarse model suitable for flow simulation. Not all static models can be accurately upscaled, so the course will focus on 'upscalability' and techniques to maximize information retention during the upscaling workflow. It will consider a number of different modelling strategies and investigate, in some depth, the interaction between the static and flow simulation models. By the end of the course participants will be able to design static and dynamic models that will improve the quality of the upscaled model for different development scenarios

COURSE OUTLINE

Day 1: Using wireline data

- Introduction to upscaling
- Discussion of typical upscaling problems
- Identification of user-specific issues
- Upgridding, fundamental constraints of scale and grid design
- Upscaling static properties

Day 2: Using mapping data

- Revision and exercise
- Upscaling dynamic properties
- Discussion on why we don't upscale porosity or permeability
- Upscaling quality control

Day 3: Interfacing with MS Office

- Case studies and horror stories
- The 'un-upscalable grid'
- Practical aspects of upscaling with commercial software

INSTRUCTOR

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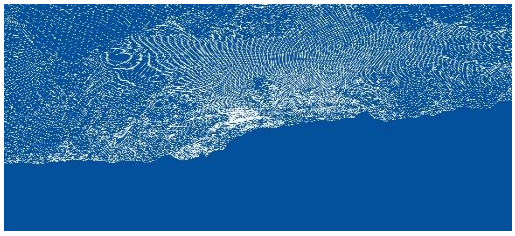
PRACTICAL RESERVOIR ENGINEERING AND FLOW SIMULATION (RES 421)



This course is aimed at Geoscientists wishing greater knowledge of the fundamentals of Reservoir Engineering and flow behaviour, including Dynamic Simulators whose primary input are the static geomodels.

DESIGNED FOR

- Geoscientists (Geology, Geophysics & Petrophysics)
- Junior Reservoir Engineers
- Anyone interested in the basics of Reservoir Engineering and Flow Simulation

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

Participants will learn:

- Main reasons and link between geomodelling & dynamic simulation.
- Reservoir Engineering Fundamentals.
- The different dynamic simulation models.
- Flow Performance, Productivity Index.
- Well Testing & Material Balance.
- Flow simulation outputs.
- Resources definition.
- Basic Economics for assessing projects.
- Field Development Plan Workflow.
- Generate a Field Development Plan from a given static model.
- Present their FDP and Economics before their Peers.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 5 Jun	2490 €
Online	10 - 14 Aug	2490 €
Stavanger	4 - 8 May	4990 €
Abu Dhabi	26 - 30 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course will make Geoscientists gain a better understanding of how simulators function, and how best to capture the relevant heterogeneities in their static models that replicate the true flow behaviour of wells and fields. Focus is on Fluid and Rock Properties; Drive mechanisms, productivity and ultimately recovery. Basic fundamentals of Well Testing are covered, in order to understand how these are carried out, their results analysed and what information is gained from such tests. The various available Dynamic simulators are reviewed (Black Oil versus Compositional) and their initialization (Black Oil only).

COURSE OUTLINE

Day 1:

- Reservoir Engineering
- Fluid & Rock Properties
- Reservoir Drive Mechanisms
- Recovery Performance for Different Drive Mechanisms

Day 2:

- PI & Well Placements
- Well Testing
- Dynamic Simulation
- Numerical Flow Simulation
- Black Oil versus Compositional

Day 3:

- Simulator Input & Initialisation
- IPR and VLP Curves
- Artificial Lift
- Simulator Output & Results
- Volumetric Reserves & Resources Computation
- In Place & Recoverable Oil & Gas Resource
- Deterministic Calculation of Oil & Gas Resources
- Probabilistic Calculation of Oil & Gas Resources (Monte-Carlo)
- World Resources & Production
- Resources/ Reserves Definitions
- World Resources & Production

Day 4:

- Cashflow Modelling from Simulation Results
- Field Development Financial & Cost Recovery Structure
- Ring Fencing
- Economic & Financial Definitions
- Cashflow Modelling
- Economic Metrics
- Field Development Plan (FDP)
- Workflow
- Gas-Flaring
- Health, Safety and Environment

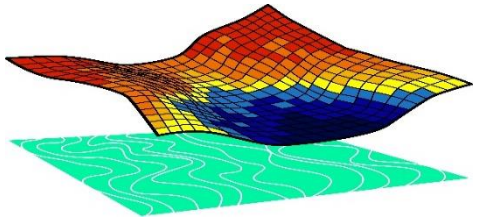
Day 5:

- Tutorial
- Complete & Present Results

INSTRUCTOR

Jean-Marie Questiaux has over 40 years' experience in Oil and Gas Industry covering onshore and offshore Exploration and Production, specialized in the Integration of Geomodelling and Reservoir Engineering; Field Development, Project Economics and Risk Evaluation (Technical & Economics). Former Positions held include Exploration Manager in Libya & Angola (PetroFina) Exploration Manager in Bolivia (Total) and Subsurface Technical Director Nigeria (Addax), Teaching Fellow. Institute of Petroleum Engineering (Heriot Watt University). Specialized in Integrated Studies associated to Field Developments (Green and Brown Fields) integrating G&G, Petrophysics, Reservoir Engineering, Production Technology; Resource Estimation & Project Economics. He is expert in Subsurface Project Set-up, Management, Review and Sanctioning, Corporate Strategy, Short & Medium-Term Business Planning (Production & Reserves) and Integrated Technical Work Program (ITWP).

PRACTICAL IN GEOMODELLING, FLOW SIMULATION, ECONOMICS AND UNCERTAINTY IN FIELD DEVELIOPMENT (RES 422)



The course emphasizes the integration of static and dynamic modelling and their application in the design of Field Development Projects that maximize recovery and reserves, by optimizing well numbers and their placement, lowering investment and operating costs while maintaining best industry practices including HSE.

DESIGNED FOR

Geoscientists (Geology, Geophysics & Petrophysics), Reservoir and Petroleum Engineers, Project economists, preferably 3-5 years industry experience.

COURSE LEVEL

- Advance

LEARNING OBJECTIVES

Participants will learn:

- Objectives for Geomodelling & Dynamic Simulation.
- Fundamentals of geostatistic and its application to geomodelling.
- Detailed geomodelling workflow.
- Reservoir Engineering fundamentals.
- Introduction to Well Testing, Flow Performance and Productivity Index.
- Artificial lift & basics of Material Balance.
- Flow Simulation initialization outputs.
- Reserves and Resources definition.
- Uncertainties in geomodelling.
- Field Development Plan (FDP) workflow.
- Economics for assessing projects.
- Assessing technical and economic merit/ risks of a Field Development Plan.

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Jul	2490 €
Online	7 - 11 Sep	2490 €
Dubai	1 - 5 Jun	4990 €
London	15 - 19 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course gives Geoscientists insight into dynamic simulation and how to build static geomodels that best replicate the wells' and fields' flow behaviour. The course gives Reservoir & Petroleum Engineers a better understanding of the complexities of Reservoir Geology and the difficulties of reservoir characterization considering the large number of variables and parameters involved, covering a broad range of scales. They will also have greater appreciation for the challenges of capturing these reservoir characteristics particularly the heterogeneities that most affect flow behaviour in simple grid cells. Reserves and Resource definitions are also covered, together with their computation. Field Development Design, Project Economics, Economic metrics, Cashflow modelling and the Risk/ Ranking and the Final Investment Decision (FID) complement the course and are extensively covered.

COURSE OUTLINE

Day 1:

- Introduction to Geomodelling
- Caliper log, logging model
- Geomodelling Work Flow
- Rock Typing

Day 2:

- Facies Modelling
- Pixel & Porosity Modelling
- Multipoint and Geobody Modelling
- Petrophysical Modelling
- NTG & Porosity Modelling
- K_h & K_v Predictor & Modelling

Day 3:

- Modelling Techniques
- Uncertainty in Modelling
- Reservoir Engineering
- Fluid & Rock Properties
- S_{wir}, P_c, K_r & Fluid Contacts
- Reservoir Drive Mechanisms
- Productivity Index
- Well testing

Day 4:

- Dynamic Simulation
- Numerical Flow Simulation
- IPR & VLP performance
- Fluid Contacts (FWL vs. OWC)
- Deterministic & Probabilistic Calculation (Monte-Carlo)
- Resources and Reserves Definitions
- Economics
- Metrices & Benchmarking

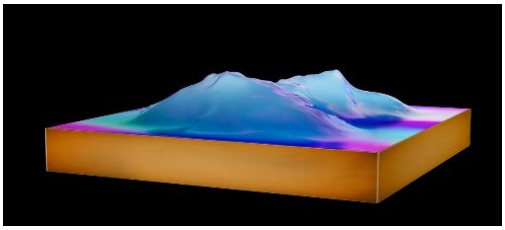
Day 5:

- Field Development Plan (FDP)
- Case Handling (flaring/injection)
- HSE
- Complete & Present Results

INSTRUCTOR

Jean-Marie Questiaux has over 40 years' experience in Oil and Gas Industry covering onshore and offshore Exploration and Production, specialized in the Integration of Geomodelling and Reservoir Engineering; Field Development, Project Economics and Risk Evaluation (Technical & Economics). Former Positions held include Exploration Manager in Libya & Angola (PetroFina) Exploration Manager in Bolivia (Total) and Subsurface Technical Director Nigeria (Addax), Teaching Fellow. Institute of Petroleum Engineering (Heriot Watt University). Specialized in Integrated Studies associated to Field Developments (Green and Brown Fields) integrating G&G, Petrophysics, Reservoir Engineering, Production Technology; Resource Estimation & Project Economics. He is expert in Subsurface Project Set-up, Management, Review and Sanctioning, Corporate Strategy, Short & Medium-Term Business Planning (Production & Reserves) and Integrated Technical Work Program (ITWP).

INTEGRATED GEOMODELLING, FLOW SIMULATION, ECONOMICS AND UNCERTAINTY IN FIELD DEVELOPMENT (RES 423)



This course is 90% practical work where participants will have the opportunity to apply in detail what they have learned in the "Geomodelling, Flow Simulation, Economics & Uncertainty in Field Development Planning" by constructing from scratch, a static and dynamic model of an offshore field which has several reservoirs some with undersaturated oil, others with gas caps.

DESIGNED FOR

The course is designed for Petroleum Engineers, Drilling Engineers, Geologists, Petrophysicists, Geo-modelers and Reservoir Engineers.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

- Construct a static and dynamic model.
- Fluid contacts, transition intervals, drive mechanisms
- Flow Performance and Productivity
- Various scenarios and their test in a flow simulation
- Familiarize with Flow simulation.
- Finalize the FDP: Platforms (size and number), Number of wells (Producers/ Injectors), Types of wells (Vertical/ Horizontal).
- Run a cashflow simulation and determine key Economic metrics.
- Assess technical and economic merit/ risks of this Field Development and rank them.
- Defend merits of their proposed Field Development Plan before Peers.

REGISTRATION

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2026 Schedule and Tuition

Online	11 - 15 May	2490 €
Online	3 - 7 Aug	2490 €
London	12 - 16 Jan	4990 €
Stavanger	6 - 10 Jul	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

From the constructed static models, participants will learn how to compute in place resources (Oil, Associated gas and free Gas) before moving onto the dynamic part of this course, and simulate flow in the various reservoirs. Based on the drive mechanisms, participants will be expected to test various development scenarios of vertical versus horizontal wells, well placements (producers and injectors) and analyse oil evacuation options (pipeline versus FPSO) as well as different gas handling solutions.

COURSE OUTLINE

Day 1:
- Review Field Data Supplied
- Prepare Workflow Schedule

Day 2:
- Complete Static Model
- Facies Modeling
- NTG & Porosity Modelling
- Porosity & Permeability Law
- K_h , K_v & S_w Modelling
- Resource Estimates

Day 3:
- Move to Dynamic Modeling
- Initiate Model
- Field Development Planning
- Vert. vs. Hor. Well Scenarios
- Number of Wells
- Optimal Well Placement
- Gas Handling Scenario
- Production Profiles
- Recoverable Resources
- Compare to Static Model

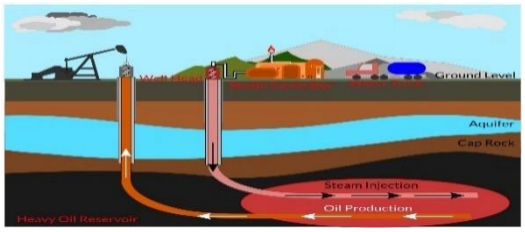
Day 4:
- Finalise FDP
- Finalise Production Curves
- Run Economics
- Oil price model & Income
- CAPEX/ OPEX/ ABBEX
- Royalties & Taxes
- Cashflow Modelling/ Simulation
- Economic Metrics & Benchmarking

Day 5:
- Complete Economics
- Complete Presentation
- Present Results, conclusions & Recommendation

INSTRUCTOR

Jean-Marie Questiaux has over 40 years' experience in Oil and Gas Industry covering onshore and offshore Exploration and Production, specialized in the Integration of Geomodelling and Reservoir Engineering; Field Development, Project Economics and Risk Evaluation (Technical & Economics). Former Positions held include Exploration Manager in Libya & Angola (PetroFina) Exploration Manager in Bolivia (Total) and Subsurface Technical Director Nigeria (Addax), Teaching Fellow. Institute of Petroleum Engineering (Heriot Watt University). Specialized in Integrated Studies associated to Field Developments (Green and Brown Fields) integrating G&G, Petrophysics, Reservoir Engineering, Production Technology; Resource Estimation & Project Economics. He is expert in Subsurface Project Set-up, Management, Review and Sanctioning, Corporate Strategy, Short & Medium-Term Business Planning (Production & Reserves) and Integrated Technical Work Program (ITWP).

SAGD AND SOLVENT-SAGD DESIGN AND ANALYSIS IN THERMAL RECOVERY (RES 424)



PetroTeach offers a comprehensive course on understanding and design of SAGD and Solvent-SAGD in thermal applications. There is ample opportunity to work problems in class. By the end of this course, participants will be able to analysis and interpret evaluations done by others on SAGD and solvent-SAGD.

DESIGNED FOR

Reservoir and production engineers, reservoir simulation engineers, technology development leaders that are involved in forecasting and evaluation of new SAGD applications and solvent applications for thermal recovery development and design.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

Participants will learn:

- Heat transfer in SAGD operation.
- Limitations of Butler and other analytical models.
- Assumptions made in SAGD analytical models.
- Optimizations made in forecasting models.
- Fundamentals of phase behavior.
- simple phase-equilibria calculations.
- Assumptions made in solvent analytical models for oil rate prediction.
- Benefits and limitations of pure-solvent and steam-solvent processes

REGISTRATION

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2026 Schedule and Tuition

Online	18 - 19 Mar	1070 €
Online	4 - 5 May	1070 €
Amsterdam	11 - 12 Jun	2490 €
Kuala Lumpur	12 - 13 Nov	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This is a 2-day course designed to provide participants with a complete understanding and design of steam assisted gravity drainage (SAGD) oil production and SOR evaluation and also new technologies of Solvent in thermal applications.

In 1st-day of this course is an introduction to Butler assumptions and mathematical principles and its limitations and also briefly discusses other studies which address steam assisted gravity drainage (SAGD) oil production and SOR evaluation. In this course there will be examples using Excel spreadsheets.

In 2nd-day of this course the thermodynamics and pressure-volume-temperature (PVT) and tuning parameters to fit laboratory data is described. Different analytical models for oil rate predictions such as Butler-Mokrys (1989) and Dunn-Nenniger-Rajan (1989) models will be discussed.

COURSE OUTLINE

Day 1:

- SAGD Heat Transfer
- Different temperature models
- Butler Temperature Model
- Sharma Gates Convection Model
- Irani and Ghannadi Convection Model
- Butler Production & Plateau Model
- Butler Ramp-up Model
- Discussion on Steam Interface
- m exponent factor discussion
- SOR Discussion: Heat conservation concept
- Reis SOR Model
- Edmunds and Peterson (2007)
- Miura and Wang (2012) Model
- Introduction to thermodynamics and PVT

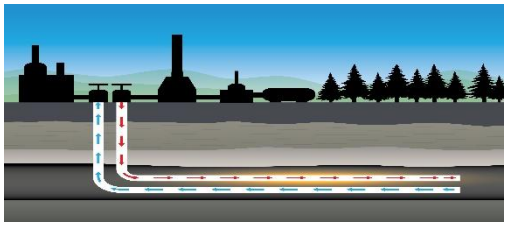
Day 2:

- Clausius-Clapeyron Equation, Dalton's law, Henry's Law and Raoult's law
- Numerical solution to practical examples such as temperature reduction in chamber and temperature reduction at Azeotropic point in ES-SAGD process.
- Pure Solvent Modelling
- Butler-Mokrys and Dunn-Nenniger-Rajan models
- Steam-Solvent Modelling
- Gupta-Gittins and Rabiei-Harding-Abedi models
- Production Challenges in Solvent Operation
- Liquid-pool model and concept
- Steam trap control for Nsolv

INSTRUCTOR

Dr. Mazda Irani is the director of Ashaw Energy Ltd. He is currently engaged in the designing and optimization of Steam Assisted Gravity Drainage (SAGD) and proper near wellbore modeling for the SAGD wells. One of his main tasks is to help and develop a software that can help operators run their SAGD wells at optimum subcool, manage the hot spots, and modify their FCD design in heterogeneous reservoirs. He published a trilogy paper named "On Subcool Control in Steam-Assisted-Gravity-Drainage Producers". Dr. Irani was previously employed in technical and supervisory roles with Cenovus Energy, Suncor Energy, RPS Energy, and C-FER Technologies. He has published and presented more than 40 technical papers on different aspects of SAGD operation. Dr. Irani holds a PhD in petroleum engineering (U of C 2017) and geomechanics (U of A 2012) and three Masters degrees in petroleum engineering, geotechnical engineering, and structural engineering.

STEAM-SOLVENT AND ELECTROMAGNETIC HEATING ANALYSIS AND DESIGN IN THERMAL RECOVERY (RES 425)



PetroTeach offers a comprehensive course on understanding and design of new technologies of Solvent and Electromagnetic-Heating in thermal applications. There is ample opportunity to work problems in class. By the end of this course, participants will be able to analysis and interpret evaluations done by others on solvent and electromagnetic-heating.

DESIGNED FOR

Reservoir and production engineers, reservoir simulation engineers, technology development leaders that are involved in forecasting and evaluation of solvent and electromagnetic heating for thermal recovery development and design.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

Participants will learn:

- Fundamentals of phase behavior.
- Simple phase-equilibria calculations.
- Assumptions made in solvent analytical models for oil rate prediction.
- Benefits and limitations of pure-solvent and steam-solvent processes.
- Different EM-heating techniques.
- Limitations of different EM- heating methods for different reservoirs.
- Assumptions made in analytical techniques used to model EM-heating methods.
- How the Antenna deliver power to reservoir.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 2 Jul	1070 €
Online	19 - 20 Nov	1070 €
Amsterdam	23 - 24 Jun	2490 €
Moscow	15 -16 Oct	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 2-day course is designed to provide participants with a complete understanding of new technologies of Solvent and Electromagnetic-Heating in thermal applications. In this course a detailed analysis of low frequency electric resistive and ohmic heating (i.e., electrical heaters and electrodes) and high frequency electromagnetic heating inductive and RF-heating (i.e., transmit radio frequency energy into reservoir by antenna) is provided. The course is an introduction to Electromagnetic (EM) Heating techniques (low, medium and high frequency) and their applications in Thermal Recovery and discusses the physics controlling different EM-heating method and analytical/numerical methods to evaluate each technique. In this course there will be examples using Excel spreadsheets.

COURSE OUTLINE

Day 1:

- Introduction to thermodynamics
- Explanation and examples of basic law
- Practical examples such as temperature reduction in chamber
- Lithophysical Properties of Rocks and Electrometric Models of Facies.
- Pure Solvent Modelling: VAPEX and Nsolv
- Butler-Mokrys and Dunn-Nenniger-Rajan models
- Onset of asphaltene precipitation
- Production Challenges in Solvent Steam-Solvent Numerical and Analytical Modelling
- Gupta-Gittins (2012) and Rabiei-Harding-Abedi
- Production Challenges in Solvent operation

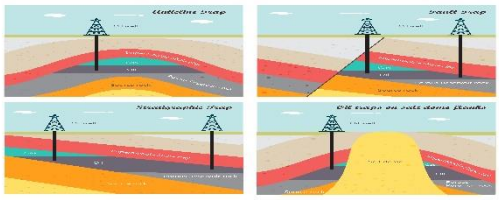
Day 2:

- Previous field tests and discussion
- Pros and Cons of Electrical Heaters (Ohmic Heating), Resistive heating and RF-heating
- Review of Electric and Magnetic Fields
- Dielectric Properties of Water (free vs. bound water)
- Electrical properties of Oil sand Material
- Heat Transfer in Thermal application including EM heat source
- Introduction to Antenna and power transmission
- Penetration Depth
- EM wave in Lossy Medium

INSTRUCTOR

Dr. Mazda Irani is the director of Ashaw Energy Ltd. He is currently engaged in the designing and optimization of Steam Assisted Gravity Drainage (SAGD) and proper near wellbore modeling for the SAGD wells. One of his main tasks is to help and develop a software that can help operators run their SAGD wells at optimum subcool, manage the hot spots, and modify their FCD design in heterogeneous reservoirs. He published a trilogy paper named "On Subcool Control in Steam-Assisted-Gravity-Drainage Producers". Dr. Irani was previously employed in technical and supervisory roles with Cenovus Energy, Suncor Energy, RPS Energy, and C-FER Technologies. He has published and presented more than 40 technical papers on different aspects of SAGD operation. Dr. Irani holds a PhD in petroleum engineering (U of C 2017) and geomechanics (U of A 2012) and three Masters degrees in petroleum engineering, geotechnical engineering, and structural engineering.

THE USE OF ANALOGUES TO ESTIMATE RECOVERY EFFICIENCIES AND VALUE FOR OIL AND GAS ACQUISITIONS (RES 426)



PetroTeach offers this course in analogues and its applications in Reservoir Engineering. The course addresses how to estimate rock and fluid properties from analogues and how to estimate recovery factors and recoveries per well, Participants will be taught as well about notional development plans for offshore projects and other concepts used to get a prudent evaluations.

DESIGNED FOR

This course is for petroleum, reservoir engineers and geoscientists, however anyone interested in lease sales and/ or farm-in opportunities should attend this course.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of this course are:
Attendees will be able to obtain value of Analogues as well as identify constraints in terms of geology and engineering that will make the acquisition.

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	15 - 16 Jan	1070 €
Online	14 - 15 May	1070 €
London	9 - 10 Jun	2490 €
Stavanger	8 - 9 Oct	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course will discuss the use of analogues in Exploration, Appraisal, Development and Production Gates to help attendees assess Recovery Efficiencies of offshore oil and gas projects and quantify their economic values. Attendees will learn how to develop a preliminary proxy or response surface model for a given acquisition, lease sale or farm in opportunity and estimate oil and gas recovery and the number of wells required for a field development.

COURSE OUTLINE

Day 1:

- Brief review of parameters/ inputs used for estimating recovery efficiencies
- Proposed methodology of estimating recovery factors with functions
- Application of analogues and how to extract useful information from them
- Generation of trend lines for rock and fluid properties and how to validate them
- Generation of input parameters to be used in the Screening of Projects.

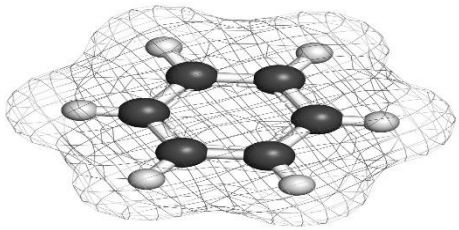
Day 2:

- Definition of Proxy Models
- How to Build a Proxy Model for a Rapid Screening of a particular prospect
- Students are encouraged to bring their own examples ad apply the methodology to its own cases
- How to define the Inputs for Probabilistic Distributions
- Notional Field Development Plans: well counts, subsea tiebacks, surface network
- Introduction to data rooms and the process of lease sales, bid rounds and farm-in opportunities

INSTRUCTOR

Dr. Luiz C. Amado, PhD, an expert in reservoir engineering (Modeling and Simulation) and Integrated Reservoir Modeling Author of the Book-Reservoir Exploration and Appraisal, published by Elsevier. Amado has over 20 years of oil and gas industry experience, working with Shell, Petrobras, and other major oil and service companies. During his 10-year career with Shell, as a Senior Reservoir Engineer, he worked on several projects in UK, Brazil and USA. In UK, he was involved in reservoir engineering and simulation studies, and operations, in the Southern North Sea. As a Senior Reservoir Engineer for Shell in Houston, he worked on deep water reservoir engineering projects in GOM and at Exploration areas in Brazil (Santos, Campos and Espirito Santo basins), as well as on projects in other areas in South America and South Caribbean. As a Senior Reservoir Engineer for Petrobras America, Dr. Amado worked on reservoir engineering projects to evaluate prospect opportunities in Pliocene, Miocene and Lower Tertiary plays of GOM. Amado is a long-standing member of SPE, and has served on several SPE technical committees and conference boards. He is a co-instructor of two popular SPE training courses.

PVT PHASE BEHAVIOR AND PROPERTIES OF RESERVOIR FLUIDS (RES 427)



From reserve estimation, to hydrocarbon reservoir modelling, to Enhanced Oil Recovery (EOR), the knowledge of PVT (Pressure Volume Temperature) Phase Behavior and Properties of Reservoir Fluids play a crucial role in providing critical information resulting in efficient and profitable extraction, production and processing of fluids in the oil & gas industry. A free 30-day copy of Hydrafact software will be given to the participants for some of the calculations.

DESIGNED FOR

Reservoir, petroleum, production, process, design, and drilling engineers, geologists/ operators/ technicians/ managers, MSc, and PhD students.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of the top-most level content of the course are grounding in:

- Demonstrate the fundamentals of reservoir fluid composition
- Design fluid sampling
- Establish PVT testing
- Density, viscosity and interfacial tension
- Fluid characterization & description
- Equation of State (EoS) tuning
- An introduction to EOR processes
- Prepare the results of PVT analysis for use in reservoir modelling
- Characterize sources of error in PVT modelling and evaluate case studies
- Use PVT data in EoS tuning

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2026 Schedule and Tuition

Online	9 - 13 Feb	2490 €
Online	2 - 6 Mar	2490 €
Stavanger	18 - 22 May	4990 €
Abu Dhabi	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Topics ranging from reservoir fluid composition, phase behavior and reservoir fluids classification; optimally obtaining high quality PVT fluid samples; effect of contamination; PVT tests and correlations/modelling; density, viscosity and interfacial tension, to evaluation and application of PVT reports; fluid analysis and characterization, Equation of State (EoS) tuning using a commercial model and applications in reservoir simulation. There will be a discussion of potential causes of errors and several case studies.

COURSE OUTLINE

Day 1:

- Phase behavior of pure compounds and mixtures
- Acentric factor & Compressibility Factor
- Classification of reservoir fluids
- Role of water
- Fluid Sampling

Day 2:

- Compositional analysis
- Basic PVT tests for a dry gas
- Tests for a wet gas
- Separator tests
- PVT tests for all 5 types of petroleum fluids (CCE, DL, CVD, etc.)

Day 3:

- PVT Correlations, PVT Reports (QC)
- Phase Equilibria
- Chemical Potential, Fugacity and Activity
- Raoult's & Henry's Law
- Equations of State
- Volume Shift
- Attraction Term Temperature Dependency
- Mixing Rules

Day 4:

- VLE Calculations
- Fluid Characterization
- Distillation, Gas Chromatography
- Critical Properties
- Description of Fluid Heavy End
- Gas Injection
- Slim Tube and Rising Bubble
- First Contact Miscibility
- Vaporizing Gas Drive
- Condensing-Vaporizing Gas Drive

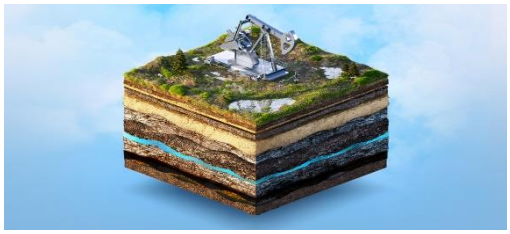
Day 5:

- Interfacial Tension
- Grouping
- Comparison/Tuning of EOS
- EOS Calibration for an Oil & a Gas Condensate Sample
- Creating Black Oil Tables for Reservoir Simulation

INSTRUCTOR

Professor Bahman Tohidi is expert on gas hydrates, flow assurance, PVT, phase behavior and properties of reservoir fluids and H_2S/CO_2-rich systems, production technology and EOR. He leads Hydrate, Flow Assurance and Phase Equilibria Research Group at Institute of Petroleum Engineering, Heriot-Watt University. He is the Director of International Centre for Gas Hydrate Research and the Centre for Flow Assurance Research (C-FAR) at Institute of GeoEnergy Engineering. He is a consultant to major oil and service companies. Bahman is Managing Director of "HYDRAFACT LIMITED" a Heriot-Watt spin-out Company formed in late 2005 with Flow Assurance and PVT as its main area of activity. He was the recipient of "Life Time Achievement" from the 9th International Conference on Gas Hydrate, Denver, USA, in June 2017 for significant, continuous contributions to the area of hydrate research, practice, and/or exploration, for a period of over twenty five years. Also, his research group work was recognized as one of the top 10 UK examples of the role of Chemical Engineering in Modern World by the IChemE in 2016.

CAPILLARITY IN POROUS MEDIA AT DIFFERENT SCALE (RES 428)



The aim of this course is to provide an in-depth understanding of capillarity in porous media at different scales. This is achieved through a systematic approach, where current definitions of capillary pressure are revisited. It is shown that they are special cases of a more advanced theory of capillarity. The role of capillarity in the fate of fluids flowing through a porous medium is thoroughly unraveled.

DESIGNED FOR

The course is designed for petroleum engineers, reservoir engineers, experimentalists and modelers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Origin of properties such as wettability and capillarity.
- Basic formulas for capillarity at the pore scale.
- Capillarity at the core scale.
- Laboratory measurement of capillary pressure-saturation relationship.
- Capillarity at the reservoir scale and the link to laboratory measurements
- Advanced theories of capillarity and their consequences for modelling two-phase flow through porous media

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online*	13 - 16 Jan	1990 €
Online	17 - 20 Nov	1990 €
Oslo*	21 - 24 Apr	4370 €
Abu Dhabi	13 - 16 Oct	4370 €

* Short version of the course

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

First, underlying mechanisms of capillarity at various scales are explained. Concepts of immiscibility, fluid-fluid interface, surface tension, surface energy, hydrophobicity, wettability, and pressure are introduced based on molecular phenomena. Next, capillary pressure is defined at the pore scale. Then, capillary pressure at the core scale is introduced. Methods of measurements of capillary pressure-saturation curves are explained and causes of capillary hysteresis are discussed. Finally, an advanced theory of capillarity is introduced.

COURSE OUTLINE

Day 1:*

- Molecular considerations
- Surface tension vs interfacial tension
- Wettability, hydrophobicity, and capillarity
- Rise (or fall) of fluids in a capillary tube
- Definitions of capillary pressure
- Young's equation and Young-Laplace equation
- Two-phase displacement in a tube

Day 2:

- Concepts of REV and averaging*
- Link between capillary pressure-saturation curve and pore-scale capillarity*
- Measurement of capillary pressure-saturation curves
- Features of capillary pressure-saturation curves
- Derivation of capillarity equation based on principles of rational thermodynamics

Day 3: *

- Lab measurement of capillary pressure curves: Porous Plate, Centrifuge, and Mercury injection methods
- Capillary pressure-saturation curves under flow conditions; dynamic capillarity theory
- Practical significance of dynamic capillarity in modelling two-phase flow
- Equations of two-phase flow
- Pore size distribution calculation

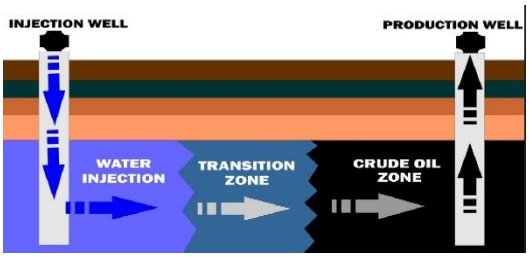
Day 4:

- Equations of two-phase flow including dynamic capillarity and their behavior
- Non-equilibrium interphase heat and mass transfer during two-phase flow in porous media

INSTRUCTOR

Professor Majid Hassanizadeh has accumulated 40 years of experience in the theoretical, experimental, and computational studies of flow and transport in porous media. He has more than 300 publications on theories of flow and transport in porous media, pore-network modeling and experimental studies of two-phase flow. He has been (associated) editor of major journals: Advances in Water Resources, Vadoze Zone Journal, Water Resources Research (2004-2009), and Transport in Porous Media. He is a co-founder and Managing Director of International Society for Porous Media (InterPore). He was awarded honorary degree of Doctor-Ingenieur from Stuttgart University in 2008, received the von Humboldt prize in 2010 and Don and Betty Kirkham Soil Physics Award in 2011, was selected as 2012 Darcy Lecturer by the US National Groundwater Association. He received the Royal Medal of Honor, Knight in the Order of the Netherlands Lion, in 2015, and Robert Horton Medal of American Geophysical Union in 2019.

BEST PRACTICES OF ENHANCED OIL RECOVERY PROJECTS (RES 429)



The course is designed to provide attendants with solid understanding of different design aspects, types, screening criteria, and field application of current and advanced types of Enhanced oil Recovery (EOR) processes. This course presents the connection of each process to the reservoir principles to the results of cases from the field and covers the specifics of chemical, miscible and thermal EOR processes.

DESIGNED FOR

Petroleum Engineers & Reservoir Engineers, Geologists, Petrophysicists, Geophysicists, Geological engineers & other discipline engineers, other individuals who need to know about current & advanced techniques of EOR.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The main learning objectives are:

- Describe and apply water flooding and different EOR processes.
- Reservoir characterization and screening actual fields for EOR methods.
- How to maximize oil recovery using Mobility Ratio and Capillary Number.
- Chemical EOR: polymer, alkaline-polymer, and alkaline/ surfactant/ polymer.
- Miscible and thermal EOR techniques and new advancements in EOR techniques.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Jul	2490 €
Online	14 - 18 Dec	2490 €
Istanbul	1 - 5 Jun	4990 €
Doha	19 - 23 Oct	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

This course presents data gathering, application's workflow, problems, uncertainties, geology and reservoir characterization techniques required for different EOR methods. The course explains why water flooding is needed? and reasons of its failures. The course also covers screening, application and constraints of all EOR processes of chemical, miscible and thermal. Detailed EOR methods will be covered with many actual field cases worldwide. In addition, advanced hybrid EOR methods will be discussed.

COURSE OUTLINE

Day 1:

- Different EOR methods
- Data gathering of RCA and SCAL for EOR projects
- Screening criteria and mechanisms
- How to maximize oil recovery using mobility ratio and capillary number
- Limitations, challenges, uncertainties and problems

Day 2:

- Reservoir concepts, main rock and fluid properties for EOR
- Using Routine and Special Core Analysis (RCAL & SCAL)
- Reservoir fluids and downhole sampling tools
- Detailed reservoir fluid study (five tests)
- Different tools for downhole fluid sampling
- Advanced reservoir geology for EOR

Day 3:

- Water flooding
- Classification and screening of different chemical EOR methods
- Polymer flooding
- Alkaline/ polymer (AP) and ASP flooding
- Three actual field results

Day 4:

- Miscible gas EOR: CO2 and Nitrogen injection methods
- Determination of minimum miscibility pressure (MMP)
- Carbon dioxide miscible and immiscible flooding processes
- Carbon dioxide EOR screening
- Actual field cases for CO2 and WAG process

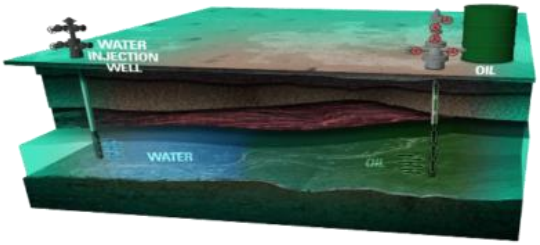
Day 5:

- Thermal processes
- Steam-Assisted-Gravity-Drainage (SAGD)
- In-situ combustion method
- Microbial EOR, Low Salinity Water (LSW), electric, seismic EOR
- Toe-to-Heel Air Injection (THAI) and CAPRI processes
- Hybrid-chemical thermal and CO2-thermal EOR

INSTRUCTOR

Professor Shedid A Shedid is a senior consultant and professor in petroleum engineering for more than 25 years. He received his doctorate (PhD) from University of Oklahoma, USA, in Petroleum Engineering. He conducted several industry technical consultation and research projects in USA, Australia, Egypt, Algeria, and UAE. He is a technical editor and/or reviewer for the SPE Journal, SPE Journal of Reservoir Evaluation & Engineering, Journal of Petroleum Science and Engineering, Journal of Petroleum Science and Technology, Journal of Engineering and Geophysics and Middle-East Journal of Petroleum Technology. He is currently a technical consultant and certified instructor at SPE and NExT-Shlumberger, Texas, USA, plus his work as Online instructor at the IBC Academy, London, United Kingdom.

WATERFLOODING MANAGEMENT (RES 430)



Water flooding has been recognized as the most popular improved oil recovery Worldwide. This course covers the concept of waterflooding management with emphasis on reservoir engineering, monitoring and surface facilities aspects plus simulation of Waterflooding. It combines definition and required surface and subsurface activities of water flood management.

DESIGNED FOR

Petroleum engineers, reservoir and production engineers, surface facilities staff, petrophysicists and geologists.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The main learning objectives of the course include:

- Understanding concept of waterflooding management.
- Developing new insights in core and fluid analysis .
- Application of immiscible fluid displacement and efficiency calculation.
- Comparison of injection patterns.
- Calculation of water injectivity and Voidage Replacement Ratio (VRR).
- Waterflood performance monitoring techniques, plots and prediction.
- Understanding required surface facilities and field case of a water plant.
- Application of waterflood simulation for oil recovery optimization.

REGISTRATION

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2026 Schedule and Tuition

Online	5 - 9 Oct	2490 €
Online	2 - 6 Nov	2490 €
Kuala Lumpur	12 - 16 Jan	4990 €
Cairo	3 - 7 Aug	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

Participants will learn the elements and flow chart of waterflood managements such as; primary recovery mechanisms, water injection patterns and their effects on oil recovery. Other concepts will be covered including prediction of waterflood performance using classical techniques of linear fractional flow theory and prediction of sweep efficiency (areal, vertical and displacement). In addition, waterflood surveillance techniques such as production plots (rate-time, rate-cum, WOR-cum, etc.), Voidage Replacement Ratio (VRR) analysis, production logging tools plus simulation and optimization of waterflooding with field cases. The course contents are designed as an interactive environment with actual industry videos and solved examples to provide clear illustration of important aspects and concepts of water flooding.

COURSE OUTLINE

Day 1:

- Definition of waterflood management
- Activates of waterflooding management
- Reservoir routine and special core analyses
- Reservoir fluid properties
- Analysis and prediction of reservoir primary drive mechanisms and their effects

Day 2:

- Selection of water injection patterns
- Better reservoir characterization techniques
- Buckley-Leverett linear fractional flow theory
- Analytical methods: performance efficiencies and predictions

Day 3:

- Development philosophy of water flooding
- Waterflooding surveillance
- Vertical sweep methods

Day 4:

- Water flooding surface facilities/ plant and required processes
- Analysis of produced water and added chemicals
- Reservoir management of water flooding and field cases

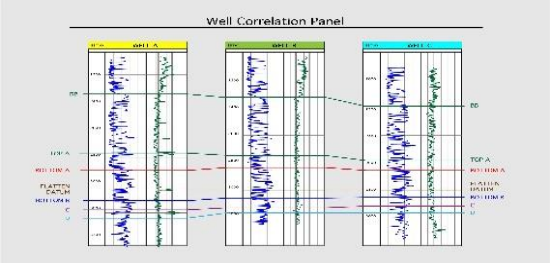
Day 5:

- Simulation of waterflooding
- Analysis of reservoir simulation
- Elements and steps of successful waterflooding projects
- Reservoir Management and oil recovery optimization

INSTRUCTOR

Professor Shedid A Shedid is a senior consultant and professor in petroleum engineering for more than 25 years. He received his doctorate (PhD) from University of Oklahoma, USA, in Petroleum Engineering. He conducted several industry technical consultation and research projects in USA, Australia, Egypt, Algeria, and UAE. He is a technical editor and/or reviewer for the SPE Journal, SPE Journal of Reservoir Evaluation & Engineering, Journal of Petroleum Science and Engineering, Journal of Petroleum Science and Technology, Journal of Engineering and Geophysics and Middle-East Journal of Petroleum Technology. He is currently a technical consultant and certified instructor at SPE and NExT-Schlumberger, Texas, USA, plus his work as Online instructor at the IBC Academy, London, United Kingdom.

INTEGRATED CORE AND WELL LOGGING DATA FOR BETTER RESERVOIR CHARACTERIZATION (RES 431)



This course is designed to provide deep understanding and field application of integrated core and well logging data for better reservoir characterization combined with well logging data for enhanced reservoir characterization.

DESIGNED FOR

Petroleum Engineers & Reservoir Engineers, Geologists, Petrophysicists, Geophysicists, Geological engineers & other discipline engineers, other individuals who need to know about current & advanced techniques of in reservoir characterization Petroleum engineers, reservoir and production engineers, petrophysicists and geologists.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The main learning objectives are:

- Design good coring program and minimize rock alteration.
- Determine rock properties using routine and special core analyses.
- Interpret, and apply different well logging methods for clean and shale reservoirs.
- Integrate/ correlate core and well log data for well correlations and characterization.
- Apply different techniques for identification/ characterization of reservoir flow units.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	17 - 21 Aug	2490 €
Online	14 - 18 Dec	2490 €
Amsterdam	20 - 24 Jul	4990 €
London	16 - 20 Nov	4990 €

Prices include course materials and exclude of VAT.

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COURSE OVERVIEW

Coring and well logging tools offer the most tangible and direct means of determining critical reservoir parameters for making important and critical decisions about reservoir management and/ or development plus enhanced oil recovery projects. This course covers coring objectives, coring methods, definitions and measurements of porosity, permeability, fluid saturation, capillary pressure, relative permeability, wettability and others of advanced Special Core analysis (SCAL) tools. The course also presents different well logging methods of clean and shaly reservoir rocks. Calibration of core and well logging data will be presented.

COURSE OUTLINE

Day 1:

- Integrated coring program
- Coring types and coring analysis
- Workflow for required core analysis
- Contents of coring program and coring report
- Selection of coring fluids and applied coring tools

Day 2:

- Coring types and coring protocol
- Essential reservoir rock properties
- Lab Measurements and Calculations of rock properties
- Routine Core Analysis (RCAL)

Day 3:

- Special Core Analysis (SCAL) Lab Measurements
- Capillary Pressure
- Wettability and Relative Perm.
- Industry correlations for predicting relative permeability
- Limitations of current laboratory measurement techniques

Day 4:

- Well Logging Methods
- Permeable zone methods
- Electric resistivity well logging methods
- Porosity logs
- Water saturation using Archie's equation with its limitations
- Water saturation of shaly formations
- Log-Core Correlation

Day 5:

- Core characterization and correlations of well logging Data
- Advanced core analysis
- Limitations and applications of correlations for reservoir description
- Different techniques identifying flow units of heterogeneous reservoirs
- Advanced technique for Reservoir Characterization

INSTRUCTOR

Professor Shedid A Shedid is a senior consultant and professor in petroleum engineering for more than 25 years. He received his doctorate (PhD) from University of Oklahoma, USA, in Petroleum Engineering. He conducted several industry technical consultation and research projects in USA, Australia, Egypt, Algeria, and UAE. He is a technical editor and/or reviewer for the SPE Journal, SPE Journal of Reservoir Evaluation & Engineering, Journal of Petroleum Science and Engineering, Journal of Petroleum Science and Technology, Journal of Engineering and Geophysics and Middle-East Journal of Petroleum Technology. He is currently a technical consultant and certified instructor at SPE and NExT-Schlumberger, Texas, USA, plus his work as Online instructor at the IBC Academy, London, United Kingdom.

PETROLEUM ENGINEERING FOR NON-ENGINEERS (RES 432)

This short course is intended for participants in the Oil and Gas industry seeking basic knowledge and understanding of Petroleum Engineering.

DESIGNED FOR

This short course is intended for personnel with little or no engineering background, knowledge or experience. It is a basic introductory course designed to expose and introduce interested parties to petroleum engineering concepts and fundamentals.

COURSE LEVEL

- Beginners

LEARNING OBJECTIVES

To introduce participants to basic concepts, theories, principles and overview of petroleum engineering.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	12 - 16 Jan	2490 €
Online	4 - 8 May	2490 €
Istanbul	8 - 12 Jun	4990 €
Stavanger	13 - 17 Jul	4990 €

Prices include course materials and exclude of VAT.

COURSE OVERVIEW

Participants would be introduced to the fundamental concepts and principles of drilling, completion and production engineering including the geology and the equipment. Basic calculations are covered in this course as well. Case studies will be presented together with videos on the processes involved.

COURSE OUTLINE

- Introduction
- Types and properties of hydrocarbons
- Petroleum geology
- Reservoir characteristics
- Exploration techniques
- Drilling
- Well completion
- Sub-surface engineering processes
- Reservoir recovery
- Surface processing
- Unconventional well technology

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer, Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

PETROTEACH

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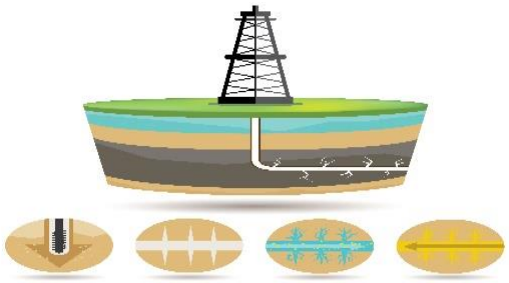
HYDRAULIC FRACTURING (RES 433)



Hydraulic fracture is pumping fracturing fluid into a wellbore at a specific rate to increase pressure to exceed that of the fracture gradient of the rock at the target point. This 5-day course intends to present different aspects of this crucial process in petroleum engineering.

DESIGNED FOR

This short course is intended for Drilling/ Completion, Reservoir, Production Engineers, field supervisors and engineering technicians who are involved in planning, designing and execution of hydraulic fracturing treatment.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

To provide attendees with a working knowledge of fracturing design and fracturing procedures. Learning the practical application of different types of fracturing jobs and use of additives to produce specific fracturing fluid properties. Learning how to evaluate the success or failure of a fracturing job.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	4 - 8 May	2490 €
Online	17 - 21 Aug	2490 €
Paris	21 - 25 Sep	4990 €
Oslo	23 - 27 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

Understanding the concepts and getting practical knowledge and learn how to get the optimum design of hydraulic fracture treatment for various reservoir types in order to improve well productivity. Also, the course will cover the execution and post treatment evaluation.

COURSE OUTLINE

Day 1:

- Introduction
- Objectives of Hydraulic Fracturing
- Developing Data Sets
- Fracture Treatment Optimization
- Field Considerations
- Fracture Mechanics
- In-Situ Stresses
- Basic Rock Mechanics
- Fracture Orientation
- Net Pressure

Day 2:

- Fracture Propagation Models
- Two-Dimensional Fracture Propagation Models
- Fracturing Fluids and Additives
- Properties of a Fracturing Fluid
- Fracture-Fluid Additives

Day 3:

- Propping Agents
- Factors Affecting Fracture Conductivity
- Proppant Transport
- Fracture Treatment Design
- Data Requirements
- Evaluating Risks in the design

Day 4:

- Acid Fracturing
- Acid Fluids Used in Fracturing
- Acid-Fracture Design Considerations
- Fracturing High-Permeability Formations
- Candidate Selection Criteria for High-Permeability Formations
- Design Considerations for High-Permeability Formations

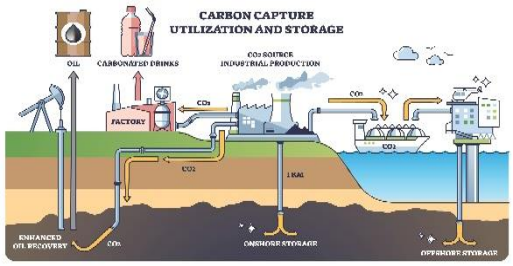
Day 5:

- Fracture Diagnostics
- Direct Far-Field Techniques
- Direct Near-Wellbore Techniques
- Indirect Fracture Techniques
- Net-Pressure Analysis
- Post-Fracture Well Behavior
- Productivity Index Increase
- Ultimate Recovery for Fractured Wells
- Post-Fracture Well-Test Analysis

INSTRUCTOR

Jerry Rusnak has more than 40 years of oilfield experience. He has worked in all phases of the industry including service, supply, operations and academia. He began his career as a Wireline field engineer, Then he worked for an Independent Exploration and Production Company as a field engineer managing wellsite drilling, completion and workover operations. Moving up he became the companies Drilling and Completion Manager in charge of multiple simultaneous drilling and completion operations across US land. At the end of his tenure (15 years) he was the company's Exploration and Production Manager. This company grew rapidly during his career and the E&P part of the company was eventually sold to a major independent. Rusnak holds a Bachelor of Science degree in Ocean Engineering from Florida Atlantic University, is an active member and past section president of the Society of Petroleum Engineers (SPE) and holds or is eligible to hold most major certifications required for wellsite work both onshore and offshore.

UNDERGROUND GAS STORAGE (RES 434)



This 3-day course is designed to provide the audience with the basic and applied features of underground gas storage (UGS).

DESIGNED FOR

- A reservoir engineer looking towards the basics and reservoir engineering aspects of UGS
- A strategic energy expert
- A petroleum engineer who's interested to understand the impact of successive injection/ withdrawal on well integrity
- A chemical process engineer looking to learn about the surface injection/ withdrawal facilities design for UGS

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

- Overview of Gas Reservoir Engineering
- Overview of Gas fluid phase behavior
- Fundamentals of underground gas storage (UGS)
- General material balance equation in Gas reservoir
- Injection/Withdrawal surface facilities
- Well pattern and well integrity in UGS
- Inventory verification in UGS
- Simulation of UGS
- Monitoring of gas migration

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	15 - 17 Jul	1740 €
Online	23 - 25 Nov	1740 €
Istanbul	24 -26 Jun	3740 €
Dubai	7 - 9 Oct	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course starts with an overview of gas reservoir engineering, followed by a review of the outlook in energy supply worldwide. Then, the concept of UGS as a method of peak shaving is presented and discussed. Next, the gas fluid phase behavior, as well as gas reservoir engineering and gas fluid flow features of UGS is reviewed. General material balance equation applied for UGS and reservoir fluid inventory analysis in UGS, optimum design of injection/withdrawal cycles and well pattern in UGS and design of surface facilities for UGS will be discussed in this course.

COURSE OUTLINE

Day 1:

- Worldwide energy supply
- Underground gas storage (UGS)
- History and background of UGS
- Different levels of UGS
- Potential underground formations for UGS
- Concepts of cushion gas, working gas
- Monitoring of gas migration during UGS operation

Day 2:

- A review of gas Reservoir phase behavior
- Gas reservoir engineering
- General material balance equation for gas reservoir
- General material balance equation
- Reservoir fluid inventory analysis
- Optimum design of injection/ withdrawal in UGS
- Optimum well pattern in UGS
- Condensate production during UGS
- Impact of depleted reservoir fluid composition on UGS

Case study: UGS in a naturally fractured, depleted gas reservoir

Day 3:

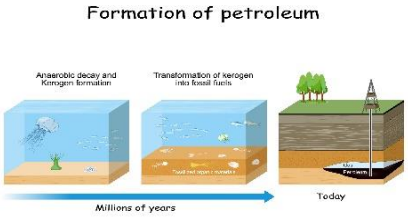
- Optimum time to start UGS in a depleted reservoir
- Basic design of surface facilities for UGS
- HSE regulations of surface facilities
- Pre-treatment of injection fluid
- Post-treatment of withdrawal fluid

Case study: UGS surface facility design

INSTRUCTOR

Professor Reza Azin is a senior lecturer and researcher in Reservoir and Chemical Process Engineering having more than 20 years of teaching and consultation experience in the university and industry. He is an expert in oil and gas reservoir, underground gas storage, PVT analysis and modeling, surface facility design, carbon management, and process simulation. His current research and industrial activities include, among others, carbon capture and sequestration (CCS), energy and exergy analysis in process industries, developing novel biomaterials for EOR, the flow of fluids through porous media, and chemical process simulation and optimization. He is also focusing on entrepreneurship and start-up development, as well as business models, team development, and commercialization in the oil and gas sector. He has supervised more than 40 masters and PhD theses and dissertations, published more than 75 journal papers and presented more than 45 conference papers. His books include The Vapor Extraction (VAPEX) Process in Heavy Oil Fractured Systems and Simulation Study of Underground Gas Storage.

AN INTEGRATED APPROACH TO PVT AND PHASE BEHAVIOR OF RESERVOIR FLUIDS (RES 435)



This course is designed to provide the audience with classical and novel approaches in phase behaviour studies of reservoir fluids

DESIGNED FOR

- Fresh graduate, newly employed petroleum and reservoir engineers
- Senior petroleum and reservoir engineers
- Chemical Engineers
- Petroleum and Gas administrative

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

- General reservoir fluid classifications
- Overview of PVT test methods: CVD, CCE, DL, Flash, etc.
- Challenges and Errors associated with Sampling and Recombination of Gas Condensate Fluids
- PVT correlations and Physical property estimation: Black oil and Compositional
- Forward and Backward material balance of CVD Data
- Fluid Characterization: from classical to novel approaches
- Equation of State Tuning

REGISTRATION

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2026 Schedule and Tuition

Online	3 - 5 Jun	1740 €
Online	4 - 6 Nov	1740 €
Istanbul	6 - 8 May	3740 €
Dubai	5 - 7 Aug	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course starts with an overview of reservoir fluids and their classification. The audience will become familiar with the role of PVT phase behavior in upstream field development plan and downstream process design. Then, the challenges and errors associated with fluid sampling are reviewed. A detailed Quality check (QC) of collected fluid samples from subsurface and surface is presented and discussed, and a unified approach is presented for sampling and recombination of gas condensate samples to obtain a representative reservoir fluid. Next, PVT correlations and Physical property estimation methods are reviewed for black oil and compositional fluid samples. After that, material balance of PVT tests are reviewed and several real-world, field examples will be presented and discussed.

COURSE OUTLINE

Day 1:

- General reservoir fluid classification
- Overview of PVT test methods
- An overview of the PVT phase behaviour
- Challenges and Errors associated with Sampling
- A Unified Approach for Quality Control (QC) of Drill Stem Test (DST) and PVT Data

Day 2:

- PVT correlations and Physical property estimation
- Forward and Backward material balance of CVD Data
- The challenge of negative material balance
- Intelligent methods in PVT analysis
- Worked examples

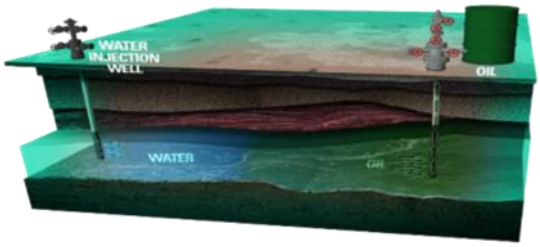
Day 3:

- Fluid Characterization: from classical to novel approaches
- Equation of State Tuning
- Integrated Characterization and a Tuning Strategy for the PVT Analysis of Representative Fluids
- Impact of fluid characterization in reservoir compositional gradient
- Worked examples

INSTRUCTOR

Professor Reza Azin is a senior lecturer and researcher in Reservoir and Chemical Process Engineering having more than 20 years of teaching and consultation experience in the university and industry. He is an expert in oil and gas reservoir, underground gas storage, PVT analysis and modeling, surface facility design, carbon management, and process simulation. His current research and industrial activities include, among others, carbon capture and sequestration (CCS), energy and exergy analysis in process industries, developing novel biomaterials for EOR, the flow of fluids through porous media, and chemical process simulation and optimization. He is also focusing on entrepreneurship and start-up development, as well as business models, team development, and commercialization in the oil and gas sector. He has supervised more than 40 masters and PhD theses and dissertations, published more than 75 journal papers and presented more than 45 conference papers. His books include The Vapor Extraction (VAPEX) Process in Heavy Oil Fractured Systems and Simulation Study of Underground Gas Storage.

WATERFLOOD MANAGEMENT (RESter 436)



This course provides a complete review of all aspects of waterflood schemes being the most proven, lowest cost, and applicable to various types of reservoirs to EOR. The various steps of waterflood implementation include cursory screening of candidate fields, scheme planning, project design (including pilot design), and the estimation of the expected incremental oil recovery and production performance.

DESIGNED FOR

This course is aimed at reservoir, petroleum and exploitation engineers/technologists, and geologists who are involved in the area of Waterflooding and EOR schemes.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course, participants will

- Learn how to select candidate reservoirs which are suitable for waterflooding or EOR
- Become familiar of the steps to design successful waterflood schemes; including when to start water injection and how to maintain well injectivity.
- Learn to estimate the oil Expected Ultimate Recover (EUR) and prepare production forecasts.
- Become familiar of the various techniques to monitor performance and resolve production problems.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	27 - 29 Oct	1740 €
Online	2 - 4 Dec	1740 €
London	5 - 7 Oct	3740 €
Muskat	4 - 6 Nov	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The different techniques used for surveillance and performance monitoring of waterflood projects to optimize oil recovery, will be discussed, including; the Hall Plot, VVR calculations, pattern balancing and re-alignment, volumetric sweep efficiency, production logging, injectivity problems and solutions, and conformance improvements. Numerous interesting case studies will be reviewed to illustrate the performance monitoring and optimization of waterflood projects from different parts of world. Add-on schemes to improve oil recovery including, polymer and gas injection will be discussed. Class problems and group exercise will be offered to the course attendees to emphasize the technical concepts taught. A detailed course hand-out in full colours; which is an excellent reference, will be provided.

COURSE OUTLINE

Day 1:

- Introduction to waterflooding and EOR
- Potential incremental reserves
- Statistics of waterflood and EOR scheme screening
- Reservoir characterization
- A review of factors that can affect waterflood performance
- Case study (West Eagle Unit)
- Case study (Ekofisk field)

Day 2:

- reserves determination
- Case study (primary, secondary, & tertiary recovery schemes)
- Reserves determination
- Volumetric, material balance & probabilistic methods, RTA, and DCA
- Design and planning of waterflood schemes
- Review & screening of EOR schemes
- Timing for start of waterflood projects
- Pattern vs peripheral injection
- Case study (South Pierson Unit)

Day 3:

- Estimate of recovery factors (Stiles & Dykstra/Parson methods)
- Methods of performance monitoring
- Review of sweep efficiencies
- Use of conformance plots
- Use of the Hall Plot (class problem)
- Group exercise; evaluate performance (Cardium Unit)
- Discuss operational problems and remedies

WATERFLOOD MANAGEMENT (RES 436)

INSTRUCTOR

Mr. Saad Ibrahim, P. Eng, president of Petro Management Group Ltd. He has over 35 years of diversified experience in the oil and gas Industry and known as a worldwide highly recognized engineering consultant and a distinguished instructor. He also completed a post- graduate program with the University of Calgary in Chemical and Petroleum Engineering. The focus of Mr. Ibrahim's experience lies in the area of Reservoir management, and well test planning/analysis; analyzed over 20,000 tests worldwide. Mr. Ibrahim is a member of APEGA and SPE.

RESERVOIR MANAGEMENT: UNCERTAINTIES AND RISKS (RES 437)

Reservoir management is the most effective tool to maximize the Expected Ultimate Recovery (EUR) of hydrocarbons. Assessing the uncertainties and risks are critical to the success of all projects. Emphasis is placed on the benefits of integrating multi-disciplinary talents to avoid any potential pitfalls and ensure project success. Reservoir Management is an evolving process that is implemented form the start of projects until field abandonment.

DESIGNED FOR

This course is aimed at the reservoir, petroleum, and exploitation engineers & technologists, geophysicists, and geologists who are involved in field development and exploitation.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course, participants will

- How to recognize geological and engineering, regulatory rules risks and uncertainties, further how to mitigate these risks.
- learn how to effectively apply the process of reservoir management.
- Have how to integrate the technical and financial knowledge to ensure the highest project NPV is achieved.
- Get familiar with available technology and techniques such as waterflooding, EOR , and Hz well applications and how to implement them in your projects

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	14 - 17 Oct	1990 €
Online	7 - 10 Dec	1990 €
London	5 - 8 Oct	4370 €
Muskat	17 - 20 Nov	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course emphasizes the significance of the reservoir management principles; using multi-disciplinary synergy and team efforts, to make sound decisions. The various tools needed for everyday decision-making are provided: How to plan data acquisition programs? What kind of data is needed? How to characterize various reservoirs, by a better understanding of geology, rock/fluid properties, reservoir drives, and Expected Ultimate Recoveries (EUR). How to use the data as a reservoir management tool? How to increase ultimate recovery & projects' NPV's? The theory and practical concepts of reservoir management are explained through numerous interesting real-life case studies throughout the course. Prepare field development and depletion strategy (primary and EOR recoveries) with emphasis on the bottom line results, including economic and risk assessment. The course hand-out, which is an excellent reference, will be provided.

COURSE OUTLINE

Day 1:

- Reservoir management model
  - The importance of integrating multi-disciplinary efforts
  - Use of reservoir management tools to maximize reserves and project's NPV
  - Meeting current industry challenges
- Process of reservoir management
  - Setting goals
  - Steps of development plan
  - Data acquisition
  - Execution of development plan

Day 2:

- Reservoir management related to rock properties
  - Porosity types, permeability: relative, absolute, effective
- Reservoir management related to fluid properties
  - Hydrocarbon classifications
  - Phase envelope & its application

Day 3:

- Reservoir management related to reservoir drives
  - Primary, secondary, & tertiary recovery schemes
  - Performance characteristics of different reservoir drive mechanisms
- Reservoir management using reservoir simulation
  - Basic concepts and methodology of reservoir simulation
  - Application of reservoir simulation to waterflooding

Day 4:

- Application of reservoir management tool
  - Performance evaluation of waterflood projects
  - Application of Hz wells, fracing, and EOR applications
- Economic analysis and risk management
  - Time value of money & discount rate
- Including risks in economic evaluation

INSTRUCTOR

Mr. Saad Ibrahim, P. Eng, president of Petro Management Group Ltd. He has over 35 years of diversified experience in the oil and gas Industry and known as a worldwide highly recognized engineering consultant and a distinguished instructor. He also completed a post- graduate program with the University of Calgary in Chemical and Petroleum Engineering. The focus of Mr. Ibrahim's experience lies in the area of Reservoir management, and well test planning/analysis; analyzed over 20,000 tests worldwide. Mr. Ibrahim is a member of APEGA and SPE.

GAS LIFT WELL OPTIMIZATION (PRO 501)

This course will discuss on nodal analysis, gas lift well designing, redesigning, troubleshooting, and how to select best gas lift valve type, best point of injection depth, and best gas injection rate, in order to get the optimum gas lift well condition.

DESIGNED FOR

The course is designed for Petroleum Engineers, Production engineer, Reservoir Engineer, Facilities Engineers, and production operators.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

- Understand the basic gas lift well principle.
- Understand how the gas lift well is work.
- Understand how to design and redesign for single and dual string gas lift well.
- Understand how to optimize the gas lift well.
- Understand how to perform gas lift well troubleshooting.
- Understand how to perform gas lift valve setting pressure, leaking management, and others gas lift shop job.
- Understand how to perform gas lift well production monitoring.
- Understand how to perform SGS and FGS survey.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	4 - 8 May	2490 €
Online	14 - 18 Dec	2490 €
Dubai	6 - 10 Apr	4990 €
Bangkok	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This is a five-day course designed to provide the participant with a complete understanding of gas lift optimization. The course will be started from the basic rule of thumb on gas lift well principle, and how it is work. The detail of smart gas lift type and smart orifice valve will be discussed. Besides, the principle of balance force to understand on how gas lift valve is opening and closing will also be elaborated. The participant will be brought to perform manually gas lift designing, with the graphical method. Thus, the participant will be deeply involved on how the gas lift well is work, and how to optimize gas lift well. The unloading procedure, production monitoring, and troubleshooting will also be discussed in the class. The gas lift insert string, gas lift pack off, velocity string, and gas lift shop job and management, will also be explained in the course.

COURSE OUTLINE

Day 1: Gas Lift Well General Review

- GasLift Well Basic Principle
- Gas Lift Valve Type
- Opening and Closing Pressure
- Temperature Effect
- Gradient Correlations
- Basic Reservoir and it's related performance
- IPR, PI, GLR, GOR, Water Cut, and Production Rate.

Day 2: Gas Lift Well Design

- Basic Re-Design with Graphical Method
- Nodal Analysis
- Manual Design with IPO and PPO GL Valve
- Smart Gas Lift Technology and Curve Performance
- Smart Orifice Performance
- GL Well Design with limited data.
- Single Point Injection Design
- Real Case Study #1

Day 3: Gas Lift Well Redesign

- Smart Mandrel Design with IPO and PPO Valve
- Selecting Best Point Of Injection
- Smart Dual String Gas Lift Well
- Gas Lift Well Equipment
- Gas Lift Workshop Equipment
- Gas Lift setting Pressure (theory)
- Gas Lift Valve Installations
- Unloading Procedure
- Real Case Study #2

Day 4: Gas Lift Optimization & Troubleshooting

- New and Old GL Well Treatment
- Simple Trouble Shooting
- Real Case Study #3
- Production Monitoring
- Inlet & Outlet Problems
- Down Hole problems
- Two Pen recorder

Day 5: GLV Workshop Facilities

- GL Shop Management
- Gas Lift Shop equipment
- Gas Lift Test Bench
- PTRO Setting Pressure for IPO and PPO
- Leaking Measurement Procedure
- Shelf Test
- Water Cooling Bath
- Lapping Machine

INSTRUCTOR

Gatut Widianoko has more than 32 years experiences in the gas lift well optimization for onshore and offshore in the Asia Pasific Region. He hold 3 smart gas lift patent for the smart gas lift technology, such as Smart IPO, Smart PPO, and Smart Orifice valve. Thousand students had attended on his gas lift optimization courses in the ASPAC region. And thousand bopd oil gain had been made by his gas lift optimization way, with smart gas lift technology in the ASPAC region.

INTEGRATED PRODUCTION DATA ANALYSIS AND MODELLING (PRO 502)

PetroTeach offers 5-days course on integrated production data analysis and modelling to address most important parameters facing on daily basis for production engineers.

DESIGNED FOR

The course is quite fit for the production engineers who work on daily (monthly) production data and are responsible for monitoring wells' performances and surveillance. It is very useful for the reservoir engineers who are accountable for preparing data for well modeling, PTA, material balance and reservoir simulation as well.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn on:

- Production database construction, QA/QC and data validation,
- Data preparation and integration,
- PTA and nodal analysis,
- Tank model construction and perform material balance study.
- Well-reservoir performance analysis.
- PTA and RTA.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 April	2490 €
Online	24 - 28 Aug	2490 €
Oslo	2 - 6 March	4990 €
Paris	19 - 23 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course provides a systematic approach for

- constructing production database,
- QA/QC data checking & data validation and
- evaluating data for the purpose of well surveillance, problem identification and finding solutions.

In addition, the concepts of rate transient analysis (RTA) and pressure transient analysis (PTA) are reviewed and a real well test case is provided to gain hands-on experiences in PTA. Finally, a case study on the integrated production modeling is experienced.

COURSE OUTLINE

Day 1: Introduction

- Review of test & production data.
- Prepare data and construct production database.
- Prepare comparative figures for QA/QC and consistency check.
- Well-reservoir performance analysis.

Day 2: RTA-PTA

- Review of concept and workflow,
- Model selection and interpretation,
- Tutorial: a practical case PTA study.

Day 3: Nodal Analysis

- Inflow Performance Relationship (IPR) and Vertical Lift Performance (VLP).
- Nodal Analysis.
- Tutorial: building a well model and perform nodal analysis.

Day 4: Material Balance Analysis

- Review of concept of material balance and tank model,
- Reservoir drive mechanisms,
- Immiscible displacement (waterflood).
- Tutorial: building a material balance model and perform sensitivity analysis.

Day 5: IPM

- Integrated Production Modeling.
- Tutorial: building an IPM model, perform sensitivity analysis and production optimization.

INSTRUCTOR

Dr. Kourosh Khadivi is a proficient petroleum engineer having experience in operation, research and consultancy environments with solid technical background in classical and analytical production data analysis, integrated asset modeling, flow assurance, well & reservoir performance study, well integrity, artificial lift methods, field development and data acquisition planning, economical evaluation, screening IOR/EOR methods, production optimization and reservoir management. He has worked with PETRONAS Research during 2011-2016 and contributed in several Gas EOR and WAG optimization projects for major Malaysian Fields. He has proven records in the integrated fracture network characterization, comprehensive sieve analysis for designing sand control devices and numerical pressure transient analysis. He holds MSc and PhD degrees in Petroleum Engineering and has developed three tools for "Ensemble Base-Coreflood Modeling", "Production Optimization" and "Numerical pressure transient analysis (NPTA)".

FPSO DESIGN AND OPERATION (PRO 503)

In addressing of FPSO design and operation, this course will provide delegates through the various key steps, disciplines and decisions required to deliver an FPSO project and provide participants with competency in FPSO design and considerations.

DESIGNED FOR

The course is designed for Engineers with basic knowledge and experience in offshore oil and gas production facilities engineering. The objective is to establish a foundation for engineers to be able to have an educated understanding of FPSO production facilities and techno-commercial considerations in such projects.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Overall filed layout arrangement based on an FPSO development.
- Typical commercial challenges and considerations.
- Metocean considerations and response-based hull design.
- FPSO topside arrangement and safety considerations.
- FPSO systems .
- Regulatory regime considerations.
- Offloading concepts.
- FPSO operation considerations.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 10 Jul	2490 €
Online	14 - 18 Dec	2490 €
Stavanger	8 - 12 Jun	4990 €
Kuala Lumpur	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course addresses commercial and technical aspects of FPSO design based on first principles and aims to provide a solid foundation in various aspects of an FPSO development. The course will provide context and a framework within which to formulate the right questions. Reference will be made to lessons learnt from past FPSO projects.

Participants are taken step by step through considerations about different aspects of FPSO projects including commercial issues, overall field layout, site specific Metocean data, hull design, marine systems, topside arrangement, station keeping mooring and riser considerations and offloading solutions. The course will also cover an overview of operational aspects of FPSO.

COURSE OUTLINE

Day 1: Introduction and Overview

- Overview of floating offshore Installations
- Field development strategy
- FOI regulatory regime
- Introduction to FPSO technology

Day 2: Techno-Commercial Considerations

- FPSO contractual strategy and risks
- Commercial considerations for FPSO projects
- Regional characteristics & metocean fundamentals
- Safety and environmental considerations

Day 3: Ship Shaped FPSO Hull Design

- Site specific metocean evaluation
- Hydrodynamic assessment
- Heading analysis
- Response analysis
- Design wave approach
- Strength and fatigue design
- FPSO conversion considerations

Day 4: Systems Design

- Turrets and swivel systems
- Station keeping and riser systems
- Topside design fundamentals
- Utility systems
- Offloading solutions
- Interface management

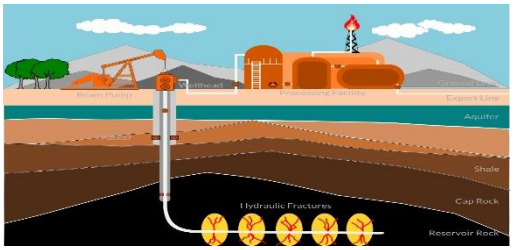
Day 5: Operations

- Installation operations
- Production operations
- Offloading operations
- Inspection and maintenance
- Decommissioning

INSTRUCTOR

Dr. Mohammad Hajiarab received his BEng., MSc. degrees in Naval Architecture and PhD. in Hydrodynamics of Floating Structures from Newcastle University, UK. During his career he has held Lead Naval Architectural positions in Lloyds Register, BG, Premier Oil and Equinor (former Statoil). As the Floating Structures Team Leader for Lloyds Register in the UK, he was a contributing author to the "Lloyds Register Rules and Regulation for Floating Offshore Installations at a Fixed Location" and represented Lloyds Register in Joint Industry Projects (JIPs). During his professional career he has worked on several offshore oil and gas field developments, in UK, Norway, Brazil, Australia and Timor Sea. He has been lecturing about floating structures since obtaining his master's degree in 2004 and has taught numerous courses at all levels including MSc students and developed training courses.

ASSESSMENT AND MITIGATION OF FORMATION DAMAGE (PRO 504)



Formation damage is a technical and operational problem with huge economic consequences. PetroTeach offers five days course in Formation Damage to petroleum engineers. The course is addressing formation damage mechanisms, causes, prevention, mitigation and remediation.

DESIGNED FOR

The course is designed for Petroleum Engineers, Production Engineers, Drilling Engineers, Geologists and Petrophysicists.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Characterization of the reservoir for formation damage.
- Laboratory assessment of formation damage.
- Formation damage by inorganic processes.
- Formation damage by organic processes.
- Field diagnosis and mitigation of formation damage.
- Modelling and simulation of formation damage.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	9 - 13 Mar	2490 €
Online	15 - 19 Jun	2490 €
Stavanger	9 - 13 Feb	4990 €
Accra	18 - 22 May	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course is designed to provide an understanding of the relevant processes causing formation damage and low flow efficiency around the wellbore during oil and gas production and injection operations. To resolve wellbore flow inefficiency, the engineer must have fundamental knowledge of the various formation damage mechanisms, be able to make a proper assessment of the problem through experimental and modelling work and propose plausible remediation techniques. This course will equip the participants with relevant framework to identify the primary cause of formation damage and provide them with modern skills to properly assess and remediate wellbore flow challenges.

COURSE OUTLINE

Day 1:

- Overview of formation damage
- Formation damage potential
- Characterization of reservoir rocks for formation damage
- Porosity and permeability alteration models
- Phase equilibria, solubility and precipitation in porous media

Day 2:

- Particulate processes in porous media
- Formation damage by fines migration
- The mechanisms of cake filtration and filter cake models
- Injectivity of water-flooding wells
- Drilling-induced formation damage

Day 3:

- Formation damage induced by inorganic scaling
- Formation damage by asphaltene and wax deposition
- Naphthenate soap deposition
- Control, mitigation and remediation of formation damage induced by inorganic and organic deposition

Day 4:

- Laboratory Assessment of Formation Damage
- Laboratory Evaluation of Formation Damage
- Field Diagnosis of Formation Damage

Day 5:

- Modelling of formation damage induced by mineral deposition
- Modelling formation damage induced by fines migration
- Formation damage simulators

INSTRUCTOR

Dr. Yen Adams Sokama-Neuyam is a lecturer in the Department of Petroleum Engineering, Kwame Nkrumah University of Science and Technology (KNUST), Ghana. He has about seven 10 years research experience from the University of Stavanger, Norway, where he has worked as an Assistant Professor and Research Fellow. He has worked with international companies such as NORCE, Equinor and PGNiG Upstream in major research projects. He is an expert in Well Deliverability, Formation Damage, Flow Assurance, IOR and CCS. Dr. Yen holds a Ph.D. and MSc. degrees in Petroleum Engineering from the University of Stavanger and a BSc. Degree in Petroleum Engineering from KNUST.

FOUNDAMENTALS OF INTEGRATED PRODUCTION MODELLING (IPM) (PRO 505)

The course covers the fundamental topics in reservoir simulation near well bore, well design modeling, and coupling reservoir and well bore. We bring practical example that develop through the course. The course couples reservoir and production skills that help engineers to develop their own integrated production model.

DESIGNED FOR

The course is designed for reservoir engineers, production and field engineers, process engineers, and researchers who are dealing with phase behavior and fluid properties, complex fluid system, EOR projects, reservoir simulations studies and flow assurance.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Analysis of fluid dynamics in vertical wells.
- Numerical modeling near well bores.
- Coupling reservoir, well model, and surface process.
- Compositional tracking from reservoir to surface.
- EOS conversion from reservoir to surface process.
- Integrating the cost model.
- Global and local optimization.
- Proxy modeling benefits.
- And some insight on Flow assurance.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 5 Jun	2490 €
Online	16 - 20 Nov	2490 €
Stavanger	4 - 8 May	4990 €
Doha	19 - 23 Oct	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course provides special training on coupling reservoir and production modeling. We cover key aspects of near well region reservoir simulation, and as well as the well design modeling. By coupling reservoir and well models, you learn how the design of your well is affected by the reservoir flow dynamics. After the course, Engineers will gain a good understanding of the integrated production and asset modeling. Moreover, they can benefit from the instructor continuous supports to their related subjects and questions during or after the course.

COURSE OUTLINE

- IPM concept
- Well Design
- Two phase flow in vertical wells
- Compositional tracking from reservoir to surface
- Use of proxy model to enhance the computation time
- Reservoir well bore modeling (different cases)
- Coupling reservoir, well and surface elements
- Field Development approach
- Integrating the cost model
- Sensitivity analysis
- Local and global optimization
- Flow Assurance and their effects on IPM
- Effect of pseudoization scheme on the optimization process
- EOS Conversion from reservoir to surface process.

INSTRUCTOR

Dr. Mohammad Ghasemi is a founder and CEO of iPESH company, a petroleum Eng. Consultancy company, with ~15 years of experience in variety of petroleum reservoir engineering projects. His recent research at Kuwait University includes the development of the flow pattern map for two phase flow in a heavy oil system, and integrated modeling of asphaltene deposition in vertical wells. Dr. Ghasemi has worked for Petrostreamz as a senior reservoir engineer, and for NISOC and PERA as a reservoir engineer. Ghasemi was involved in vast range of reservoir engineering projects. He has taught and assisted several courses in petroleum engineering namely EOR-gas injection, advanced PVT, fluid development, and production engineering. Dr. Ghasemi earned BS and MS degrees in petroleum engineering from the University of Petroleum Technology (PUT). He also holds master and PhD degrees from the University of Calgary and the Norwegian University of Science and Technology (NTNU), both in petroleum reservoir engineering.

PRODUCTION OPTIMIZATION USING NODAL® ANALYSIS (PRO 506)

Ever increasing demands related to cost savings and efficiency improvement require that the existing as well as planned oil and gas production assets are fully and optimally utilized. PetroTeach offers this 3-days course for professionals in oil and gas industry who would like to be more familiar with production optimization.

DESIGNED FOR

Well analysts, artificial-lift engineers, production engineers, and other technical personnel who are involved in the analysis and design of naturally flowing oil wells, gas wells, and high rate artificial-lift systems, such as gas-lift and ESP systems.

COURSE LEVEL

- Beginner to Intermediate

LEARNING OBJECTIVES

Participants will learn:

- Explain major factors in the artificial-lift process.
- Analyze cessation of the natural flowing period of an oil well.
- Identify/ design and analyze components of a gas-lift and ESP system.

PREREQUISITES

- Understanding of basic petroleum engineering concepts.
- For 3-5 days classes: Each participant needs to bring a laptop for solving class examples using software to be provided during class. Laptop needs to have a current Windows operating system and at least 500 MB free disk space.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	24 - 26 Jun	1740 €
Stavanger	6 - 8 May	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Nodal or Systems Analysis approach allows selection of optimum components under varying field and reservoir conditions. The course provides practical instructions on design and analysis of naturally flowing oil and gas wells, as well as gas-lift and ESP systems based on nodal or systems analysis concepts. The course will provide an awareness of the fundamentals of production by introducing fluid flow, flow correlations, PVT/ Black Oil, and discussing the inflow performance relationship (IPR), vertical lift performance (VLP), nodal analysis, and pressure gradient curves. This course is customizable from one to five-day length for a variety of audiences at appropriate skill and knowledge levels. Shorter and concise curriculum is available for project and asset managers interested in expanding their understanding of the effects of artificial lift on the performance of their assets.

COURSE OUTLINE

- Pre-Test
- Production optimization
- Need for and selection of artificial- lift methods like gas lift and ESP
- Gas-lift system components
- ESP system components
- Software introduction (for course lengths 3-5 days)
- Systems analysis for flowing wells
  - Inflow & Outflow performance relationship
  - Liquid loading in gas wells
  - Selection of design parameters based on field measurements
- Gas-lift wells o Systems analysis
  - Design
  - Analysis
- ESP Wells
  - Systems analysis
  - Design
  - Analysis
- Preliminary automation concepts
- Network Optimization Basics
- Post-test

INSTRUCTOR

Dr. Rajan Chokshi works as an artificial lift and production 'Optimizer' for Accutant Solutions, a consulting firm out of Houston, USA. He has over 34 years of experience working with a national oil company, research consortia, consulting and software firms, and a service company in various roles from engineer, software developer, project manager, trainer, consultant, and a senior business leader. Dr. Chokshi has worked on projects globally in the areas of multi-phase flow, artificial lift, production optimization, and real-webinars and trainings, Dr. Chokshi continues to conduct workshops for practicing professionals globally in SPE and private forums. As an adjunct faculty, he has taught at Texas Tech, Missouri S&T, U of Southern California, and continues to teach at the U of Houston. He has served on various SPE committees like production & facilities advisory, global training and production awards. He is incoming chair of awards & recognition committee. He was co-chair of an SPE artificial lift workshop, and is co-chair of SPE forum on production issues in unconventional.

ARTIFICIAL LIFT AND PRODUCTION OPTIMIZATION FOR UNCONVENTIONAL ASSETS (PRO 507)

This five-day course and workshop is designed to give trainees a thorough review and hands-on exposure to the artificial lift and related issues that are applicable to unconventional and tight oil/ gas wells. Production optimization is also discussed particularly real-time measurements and optimization techniques are required.

DESIGNED FOR

- Artificial lift and production personnel responsible for shale fields development and production
- Reservoir, completion, drilling and facilities engineers working on shale development
- Field and asset supervisors and managers interested inimproving performance of their unconventional assets
- Anyone interested in learning about artificial lift and unique challenges of unconventional production

COURSE LEVEL

- Beginner to Intermediate

LEARNING OBJECTIVES

- The course will use the latest software tools developed based on the research at The University of Texas. This hands-on exposure will allow participants to understand and appreciate various production aspects while providing them applicable solution paths.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	9 - 13 Feb	2490 €
Stavanger	4 - 8 May	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Besides introducing participants to the basics of artificial lift and real-time measurements, the training focuses on specific production and lift challenges related to the unconventional wells. Artificial lift selection and life cycle analysis are also covered. Recent advances in real-time approaches to the production monitoring and lift management are discussed using field case studies. A unique feature of this training is hands-on workshop for solving problems using unique software for unconventional well hydraulics and surface choke schedule management. The course closes with a group exercise wherein each group of trainees would develop problem statement and solution plans for production from

COURSE OUTLINE

Day 1:

- Pre-Test
- Introduction to Artificial Lift Systems
- Production Challenges
- Choking Practices

Day 2:

- High Rate Volume Practices
- Continuous Gas-lift
- ESP: Applications, Benefit/ Limitations, Components, Design
- Hydraulic Jet and Piston Pump

Day 3:

- Choking methodology based on well constraints
- Software simulation and exercises for choking schedules based on well
- Software simulations during high to medium rate production
- Low rate Volume Practices for liquid dominant assets
- Reciprocating Rod Lift

Day 4:

- Challenges of gas producing assets
- Role of Surface Compression

Day 5:

- Software simulation and exercises for choking schedule based on network constraints
- Selection of artificial lift for Shale Wells
- Variables specific to Shale Well ALS Selection
- Strengths & weaknesses of applicable lift systems

INSTRUCTOR

Dr. Rajan Chokshi works as an artificial lift and production 'Optimizer' for Accutant Solutions, a consulting firm out of Houston, USA. He has over 34 years of experience working with a national oil company, research consortia, consulting and software firms, and a service company in various roles from engineer, software developer, project manager, trainer, consultant, and a senior business leader. Dr. Chokshi has worked on projects globally in the areas of multi-phase flow, artificial lift, production optimization, and real-webinars and trainings, Dr. Chokshi continues to conduct workshops for practicing professionals globally in SPE and private forums. As an adjunct faculty, he has taught at Texas Tech, Missouri S&T, U of Southern California, and continues to teach at the U of Houston. He has served on various SPE committees like production & facilities advisory, global training and production awards. He is incoming chair of awards & recognition committee. He was co-chair of an SPE artificial lift workshop, and is co-chair of SPE forum on production issues in unconventional.

ARTIFICIAL LIFT AND PRODUCTION OPTIMIZATION (PRO 508)

This five-day course and workshop is designed to give trainees a thorough review and hands-on exposure to the artificial lift and related issues that are applicable to unconventional and tight oil/ gas wells. Production optimization is also discussed particularly real-time measurements and optimization techniques that are required to understand and manage the dynamic production scenarios.

DESIGNED FOR

Production, reservoir, completion, drilling and facilities engineers and operators interested in learning about selection, design, analysis and optimum operation of artificial lift and related production systems.

COURSE LEVEL

- Beginner to Intermediate

LEARNING OBJECTIVES

Participants will learn:

- How to provide awareness of the fundamentals of production.
- How to introduce applications of major forms of artificial lift.
- Knowledge on the entire lift system- from downhole to the surface and relevant components.

PREREQUISITES

- Understanding of basic petroleum engineering concepts
- For 3-5 days classes: Each participant needs to bring a laptop for solving class examples using software to be provided during class.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	5 - 9 Oct	2490 €
Online	14 - 18 Dec	2490 €
Abu Dhabi	21 - 25 Sep	4990 €
Stavanger	16 - 20 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course discusses challenges facing lift applications and addresses how digital oilfield tools help these challenges to be solved. Artificial lift selection and life cycle analysis are covered. Recent advances in real-time approaches to the production monitoring and lift management are also discussed using field case studies. Understanding of these important production concepts are a must in order to profitably exploit the existing aspects to the fullest extent.

COURSE OUTLINE

Day 1: Production Systems Analysis and Gas-Lift

- Pre-test
- Systems or Nodal Analysis: Multiphase flow, PVT properties, Inflow and Outflow Performance
- Artificial Lift Systems Classification
- Continuous Gas-lift

Day 2: Reciprocating Rod Lift

- Applications, Benefit/ Limitations, Components
- Dynamometer cards and automation
- Design example & optimization

Day 3: Electrical Submersible Pumping

- Applications, Benefit/Limitations, Components
- Well Performance Curve and Design considerations, Example
- Automation

Day 4: Progressing Cavity Pumping, Hydraulic Jet and Piston Pumps, Gas Well Deliquification

- Applications, Benefit/ Limitations, Components
- Well Performance Curve and Design considerations, Example
- Gas Well Deliquification Problem

Day 5: Capillary, Plunger Lift, Digital Oil Field

- Capillary and plunger lift solutions for well deliquification
- Digital oil field and production optimization; Real-time downhole and surface measurements; Role of software in visualization, analysis and surveillance
- Artificial lift selection
- Post-test

INSTRUCTOR

Dr. Rajan Chokshi works as an artificial lift and production 'Optimizer' for Accutant Solutions, a consulting firm out of Houston, USA. He has over 34 years of experience working with a national oil company, research consortia, consulting and software firms, and a service company in various roles from engineer, software developer, project manager, trainer, consultant, and a senior business leader. Dr. Chokshi has worked on projects globally in the areas of multi-phase flow, artificial lift, production optimization, and real-webinars and trainings, Dr. Chokshi continues to conduct workshops for practicing professionals globally in SPE and private forums. As an adjunct faculty, he has taught at Texas Tech, Missouri S&T, U of Southern California, and continues to teach at the U of Houston. He has served on various SPE committees like production & facilities advisory, global training and production awards. He is incoming chair of awards & recognition committee. He was co-chair of an SPE artificial lift workshop, and is co-chair of SPE forum on production issues in unconventional.

GAS LIFT AND OPTIMIZATION IN UNCONVENTIONAL - PRIMER THROUGH INTERMEDIATE APPLICATION CONCEPTS (PRO 509)

Gas-lift is one of the predominant forms of artificial lift used for lifting liquids from conventional, unconventional, onshore and offshore assets. Gas-lift and its various forms allows life of well lift-possibilities when selected and applied properly. This 3-days course gives insight on gas lift optimization and demonstrate the advantages and limitations of gas-lift systems.

DESIGNED FOR

- Production, reservoir, completion, drilling and facility engineers
- Anyone interested in learning about application of gas-lift systems for unconventional reservoirs

COURSE LEVEL

- Beginner to Intermediate

LEARNING OBJECTIVES

- Provide a thorough introduction about the theory of gas lift.
- Acquaint the student with system evaluation, design, installation, operation concepts.
- Why gas lift is important for unconventional production and what does it compete against?
- Components and application envelope for gas lift.
- Forms of gas-lift applied successfully in unconventional fields.
- Production Optimization of gas-lift installations.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	14 - 16 Oct	1740 €
Online	4 - 6 Nov	1740 €
London	27 - 29 Jan	3740 €
Dubai	5 - 7 Aug	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Most all oil and gas wells require artificial lift at some point and for most of the life cycle to achieve production objectives. There are at least eight forms of artificial lift technologies available in the market. Each lift system's applicability often overlaps with other lift system(s) and it is important to understand positioning and strength of a particular lift form. Unlike mechanical forms of lift methods, gas lift performance relies heavily on understanding interdependency between reservoir, wellbore and surface installations. This course is designed to give trainees thorough understanding of gas-lift technology and related application concepts in unconventional and tight oil and gas wells. Related production optimization topics are also discussed.

COURSE OUTLINE

Day 1:

- Introduction
- Artificial Lift
- How Gas-lift is same and different from other lift forms
- Well Performance
- Systems/ NODAL Analysis
- Reservoir Performance
- PVT Analysis & Multiphase Flow
- Flow Correlations & Mechanistic models; Flow Regimes/ maps
- Pressure Gradient Curves
- Vertical Lift Performance

Day 2:

- Gas Lift
- Equipment: Downhole & Surface
- Gas-Lift production rate
- Basics: Operating Point Analysis

Day 3:

- Gas-Lift Installation Design
- Overview of IPO design methodology
- Design & Optimization
- Artificial Lift lifecycle and what comes next in unconventional well's life cycle.
- Intermittent gas-lift basics & overview of design
- Plunger lift & Gas-assisted Plunger lift
- Injection Infrastructure
- Single Well Optimization Concepts
- Digital oilfield concepts applicable to gas-lift

INSTRUCTOR

Dr. Rajan Chokshi works as an artificial lift and production 'Optimizer' for Accutant Solutions, a consulting firm out of Houston, USA. He has over 34 years of experience working with a national oil company, research consortia, consulting and software firms, and a service company in various roles from engineer, software developer, project manager, trainer, consultant, and a senior business leader. Dr. Chokshi has worked on projects globally in the areas of multi-phase flow, artificial lift, production optimization, and real-webinars and trainings, Dr. Chokshi continues to conduct workshops for practicing professionals globally in SPE and private forums. As an adjunct faculty, he has taught at Texas Tech, Missouri S&T, U of Southern California, and continues to teach at the U of Houston. He has served on various SPE committees like production & facilities advisory, global training and production awards. He is incoming chair of awards & recognition committee. He was co-chair of an SPE artificial lift workshop, and is co-chair of SPE forum on production issues in unconventional.

MULTIPHASE FLOW METERING: CONCEPTS AND APPLICATIONS (PRO 510)

This short course is intended for participants in the Oil and Gas industry seeking basic knowledge and understanding of multiphase flow metering tools and technologies.

DESIGNED FOR

Reservoir, production, and facilities engineers; personnel interested in understanding the impact of multiphase metering on their field development and operational strategies.

COURSE LEVEL

- Beginner

LEARNING OBJECTIVES

- How digital oilfield tools help address these challenges.
- Recent advances in real-time approaches to the production monitoring and lift management from field case studies

PREREQUISITES

- Understanding of basic petroleum engineering concepts. Attendees should have petroleum engineering background or at least five years of working experience in the industry.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	18 Jun	570 €
Online	2 Nov	570 €
Aberdeen	2 Mar	1120 €
Oslo	30 Oct	1120 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Continuous determination of flow rates at the wellhead and/ or closer to the source in the wellbore is one of the most important considerations related to the digital or non-digital oil fields. This one-day course will provide overview of multiphase metering, need, business case and approaches offered in the marketplace to address this need.

COURSE OUTLINE

- Definitions
- Need for Multiphase Flow Metering
- Multiphase Flow- A Brief Review
- Multiphase Flow Meter (MPFM)
- Evolution
- Overview of underlying technologies
- MPFM Selection Aspects
- Overview of some Commercial MPFMs
  - In-situ surface Multiphase Flow Meter
  - In-well Optical Flow Metering
- Application example & data analysis
- Conclusion

INSTRUCTOR

Dr. Rajan Chokshi works as an artificial lift and production 'Optimizer' for Accutant Solutions, a consulting firm out of Houston, USA. He has over 34 years of experience working with a national oil company, research consortia, consulting and software firms, and a service company in various roles from engineer, software developer, project manager, trainer, consultant, and a senior business leader. Dr. Chokshi has worked on projects globally in the areas of multi-phase flow, artificial lift, production optimization, and real-webinars and trainings, Dr. Chokshi continues to conduct workshops for practicing professionals globally in SPE and private forums. As an adjunct faculty, he has taught at Texas Tech, Missouri S&T, U of Southern California, and continues to teach at the U of Houston. He has served on various SPE committees like production & facilities advisory, global training and production awards. He is incoming chair of awards & recognition committee. He was co-chair of an SPE artificial lift workshop, and is co-chair of SPE forum on production issues in unconventional.

GAS WELL DELIQUIFICATION WITH ARTIFICIAL LIFT AND PRODUCTION OPTIMIZATION (PRO 511)

Deliquification, an effective way of removing liquid from the wellbore, requires deployment of artificial lift and production optimization techniques for most of gas well's productive life. This course tends to address this issue.

DESIGNED FOR

- Production, reservoir, completion engineers and field operators
- Drilling and facilities engineers
- Anyone who is interested in learning about selection, design, analysis and optimum operation of artificial lift
- Project and asset managers interested in expanding their understanding of the impact of artificial lift on the performance of their assets

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

- A thorough treatment of liquid loading and deliquification problem
- Concepts of each form of artificial lift systems
- Optionally using appropriate software tools
- Challenges facing lift applications
- Gas well life cycle and Artificial lift selection for different stages
- Unconventional artificial lift applications
- How digital oilfield tools help address these challenges.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 11 Sep	2490 €
Aberdeen	20 - 24 Jul	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Most all gas wells produce liquid in form of water or condensate. If this liquid is not removed from the wellbore in timely manner the gas production suffers dramatically and eventually ceases all together. In case of coal-bed methane (CBM) wells, removal of water releases adsorbed methane from the coal seam. Thus, the liquid loading impacts productivity of most all gas assets. Careful selection, design and operation of artificial lift system is extremely important for profitability. Efficient and cost-effective production workflows involve field management using digital oilfield concepts. Understanding of these important production concepts are a must to profitably exploit the existing assets fully.

COURSE OUTLINE

Day 1: Introduction to Systems Analysis & Gas Well Loading Problem

- Pre-test, Multiphase flow and PVT properties
- Inflow/ Outflow Performance and sensitivity analysis
- Gas Well loading
- Completion select deliquification
- Dead String and Velocity String
- Compression and multiphase pumpings

Day 2: Introduction to Artificial Lift, Capillary Systems, Plunger Lift

- Artificial Lift Systems
- Capillary Injection Systems
- Special applications in Shale, long perforations
- Plunger Lift

Day 3: Gas-Lift, PCP, Hydraulic Lift

- Continuous and Intermittent Gas-lift
- Progressing Cavity Pump (PCP)
- Hydraulic lift

Day 4: ESP, Reciprocating Rod Lift

- Electrical Submersible Pump (ESP)
- Well Performance Curve and Design considerations, Example
- Reciprocating Rod Lift
- Design example

Day 5: Digital Oil field

- Artificial lift selection
- Artificial Lift in Shale
- Digital oil field
- Post-test

INSTRUCTOR

Dr. Rajan Chokshi works as an artificial lift and production 'Optimizer' for Accutant Solutions, a consulting firm out of Houston, USA. He has over 34 years of experience working with a national oil company, research consortia, consulting and software firms, and a service company in various roles from engineer, software developer, project manager, trainer, consultant, and a senior business leader. Dr. Chokshi has worked on projects globally in the areas of multi-phase flow, artificial lift, production optimization, and real-webinars and trainings, Dr. Chokshi continues to conduct workshops for practicing professionals globally in SPE and private forums. As an adjunct faculty, he has taught at Texas Tech, Missouri S&T, U of Southern California, and continues to teach at the U of Houston. He has served on various SPE committees like production & facilities advisory, global training and production awards. He is incoming chair of awards & recognition committee. He was co-chair of an SPE artificial lift workshop, and is co-chair of SPE forum on production issues in unconventional.

FULL FIELD OPTIMIZATION FOR GAS-LIFT ASSETS (PRO 512)

For assets having gas-lift as a predominant form of artificial lift, the full field optimization is essential due to the closed loop nature of the system due to interdependency between reservoir, wellbore and surface installation.

DESIGNED FOR

Reservoir, production and facilities engineers; project and asset managers interested in improving performance of their assets.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course participants will learn:

- How to analyze gas lift assets.
- How to implement optimization practices.

PREREQUISITES

- Understanding of basic petroleum engineering concepts
- Familiarity with engineering design software is desired.
- Optionally a workshop component can be incorporated that utilizes client-supplied software and their well data for solving field problems. This option requires three days of consulting work prior to the training.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	5 - 9 Jan	2490 €
Online	7 - 11 Sep	2490 €
Abu Dhabi	10 - 14 Aug	4990 €
Kuala Lumpur	7 - 11 Dec	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course will review full-field optimization concepts applicable to the gas lifted wells from subsurface to the surface. Through several guided exercises, participants will understand workflows of solving entire system using commercial software tools. The knowledge gained from this course will allow the participants to effectively analyze their gas lifted assets and implement optimization practices at component as well as system level over the lifetime of an asset.

COURSE OUTLINE

Systems analysis concepts applicable for solving Gas-Lift System

- Lift Systems: Why, When and What
- Gas Lift: Main Characteristics
- Gas Lift Interdependencies

Model Construction

- Integrated Model construction
- Data Collection, Validation & Analysis
- Reservoir Model Building- Walkthrough
- Well Model Building- Walkthrough
- Surface Facilities Model Building- Walk Through
- Solving an Example Model

Examples on solving gas lift asset models: Examples 1-4 Forecasting asset performance using Integrated Models

- Lift Forecasting and Benefits
- Forecasting Workflow
- Example Problem

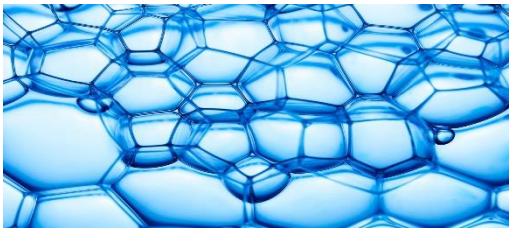
Real-time asset optimization

- What is Real-time Production optimization for gas lift asset
- Demo: Real-time system

INSTRUCTOR

Dr. Rajan Chokshi works as an artificial lift and production 'Optimizer' for Accutant Solutions, a consulting firm out of Houston, USA. He has over 34 years of experience working with a national oil company, research consortia, consulting and software firms, and a service company in various roles from engineer, software developer, project manager, trainer, consultant, and a senior business leader. Dr. Chokshi has worked on projects globally in the areas of multi-phase flow, artificial lift, production optimization, and real-webinars and trainings, Dr. Chokshi continues to conduct workshops for practicing professionals globally in SPE and private forums. As an adjunct faculty, he has taught at Texas Tech, Missouri S&T, U of Southern California, and continues to teach at the U of Houston. He has served on various SPE committees like production & facilities advisory, global training and production awards. He is incoming chair of awards & recognition committee. He was co-chair of an SPE artificial lift workshop, and is co-chair of SPE forum on production issues in unconventional.

GAS HYDRATES, THEORY AND PRACTICE (PRO 513)



With developments in offshore/ deep-water and cold climates, gas hydrate is a major flow assurance concern. PetroTeach offers this 5- day course for those who want to be more familiar with hydrate challenges in petroleum industry, options to avoid hydrate problems, and safe removal hydrate blockages. Furthermore, some new technologies for Monitoring Hydrate Safety Margin and/ or Detecting Early Signs of Hydrate Formation will be discussed.

DESIGNED FOR

Petroleum, production, process, design, drilling engineers/ operators/ technicians/ managers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of the top-most level content of the course are grounding in:

- Learn about how and why hydrates can form and how to evaluate the risk.
- Understand the methods for avoiding hydrate formation.
- Find out how to model hydrate formation at various scenarios.
- Discuss practical solutions to hydrate problems that can arise.
- Learn various techniques that can be used for hydrate blockage removal.
- Calculate time required for hydrate partial/ complete blockage and/ or dissociation.
- Case studies.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 5 Jun	2490 €
Online	14 - 18 Dec	2490 €
Stavanger	18 - 22 May	4990 €
Abu Dhabi	16 - 20 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The main objective of this course is to provide a good understanding regarding gas hydrate problems. Various methods for hydrate prevention and mitigation will be discussed. A new topic is the effect of heat transfer and time on hydrate formation and melting which will be discussed with several case studies. A one-month license for our hydrate prediction software (HydraFLASH) will be provided to the participants.

COURSE OUTLINE

Day 1:

- Phase behaviour of pure, binary & multi-component systems
- Basic PVT & Introduction to hydrates
- Calculating the amount of condensed water
- Hydrate dissociation vs hydrate formation

Day 2:

- Calculating hydrate formation point
- Hydrate phase boundary
- Evaluating gas hydrate risks
- Effect of salt on the hydrate stability

Day 3:

- How to avoid gas hydrate problems
- Calculating amount of inhibitor
- Combination of salt & thermodynamic inhibitors
- Calculating inhibitor loss
- Calculating inhibitor injection rates, effect of inhibitor purity
- Hydrates in low water content systems, usage of inhibitor
- Water dew point & its relation with hydrate formation

Day 4:

- Low Dosage Hydrate Inhibitors (LDHI), advantages & disadvantages
- Testing and evaluation of Anti-Agglomerates
- Conventional and new testing techniques for Kinetic Hydrate Inhibitors
- Addressing challenges associated with KHI, KHI removal, recovery and reuse
- New techniques for improving reliability of hydrate prevention strategies
- Removing hydrate blockages

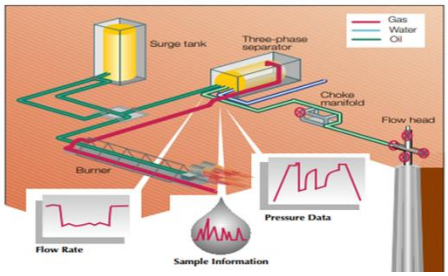
Day 5:

- Combined gas hydrate-wax problem
- Hydrates in low water content gases
- Hydrates in gas processing shell/ tube exchanger, gas injection, LPG storage tank, etc.

INSTRUCTOR

Professor Bahman Tohidi is expert on gas hydrates, flow assurance, PVT, phase behavior and properties of reservoir fluids and H_2S/CO_2-rich systems, production technology and EOR. He leads Hydrate, Flow Assurance and Phase Equilibria Research Group at Institute of Petroleum Engineering, Heriot-Watt University. He is the Director of International Centre for Gas Hydrate Research and the Centre for Flow Assurance Research (C-FAR) at Institute of GeoEnergy Engineering. He is a consultant to major oil and service companies. Bahman is Managing Director of "HYDRAFACT LIMITED" a Heriot-Watt spin-out Company formed in late 2005 with Flow Assurance and PVT as its main area of activity. He was the recipient of "Life Time Achievement" from the 9th International Conference on Gas Hydrate, Denver, USA, in June 2017 for significant, continuous contributions to the area of hydrate research, practice, and/or exploration, for a period of over twenty five years. Also, his research group work was recognized as one of the top 10 UK examples of the role of Chemical Engineering in Modern World by the IChemE in 2016.

Well Test Interpretation Analysis (PRO 514)



This 5-day comprehensive course is designed to provide in-depth knowledge and practical skills in well test analysis and interpretation for petroleum engineers. It covers key concepts, methodologies, and advanced techniques necessary for evaluating performance, reservoir properties, and optimizing production. The course is a blend of theoretical learning and hands-on exercises, offering participants the opportunity to interpret real-world well test data and apply their knowledge to complex scenarios.

DESIGNED FOR

Petroleum, production, process, design, drilling engineers/ operators/ technicians/ managers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

Upon completion of the course, attendees will be able to:

- Understand basic well testing concepts
- Conduct various types of well tests
- Interpret well test data using Semi-Log and advanced techniques
- Analyze advanced test scenarios well
- Evaluating reservoir behavior in well test analysis
- Integrate well test data with other reservoir data
- Apply well test analysis to real-world scenarios

REGISTRATION

Registration is now OPEN!

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2026 Schedule and Tuition

Online	1 - 5 Jun	2490 €
Online	14 - 18 Dec	2490 €
Stavanger	18 - 22 May	4990 €
Abu Dhabi	16 - 20 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course is tailored for petroleum engineers, reservoir engineers, production engineers, well testers, and geoscientists. Designed for professionals with basic reservoir engineering knowledge, the course focuses on advanced well test data interpretation, pressure transient analysis, and optimizing reservoir management. Participants will gain practical skills in conducting and analyzing well tests, applying modern interpretation techniques, and integrating data into reservoir models for better decision-making and well performance optimization.

COURSE OUTLINE

Day 1: Review of Basic Concepts

- Theoretical and Mathematical Equations
- Modelling of the Radial Flow
- Diffusivity Equations
- Flow Equations for Gas Wells
- Radius of Investigation
- Characterizing Damage and Stimulation
- Formation damage, Stimulation, Skin Factor, Type of Skins
- Flow Efficiency and Productivity Index
- Examples to recap the Bacic Concepts.

Day 2: Introduction to Well Test and its Applications

- What Is a Well Test?
- Objectives of the well Testing
- Conducting the Well Test
- Well Test Applications
- Single Well Test Pressure Transient Analysis (PTA)

Day 3: Well Test Interpretation Techniques

- Exercises Review
- Objective of the Well Test Interpretation
- Semi-log Analysis for Pressure Drawdown Test (PDD)
- Semi-log Analysis for Pressure Build Up Test (PBU) Techniques
- Multi-Rate well Test Analysis
- Wellbore Storage Effect
- Modern Test Interpretation Techniques
- Evaluation of Uncertainty in Input and output Data

Day 4: Application and Extension for Well Test Interpretation

- Review of Flow Regimes
- Well Testing Evaluation for Hydraulically Fractured Wells
- Well Test Analysis for Horizontal Wells
- Well Test Analysis for Dual Porosity Systems
- Review of Some Examples

Day 5: Bounded Reservoir Behavior and Integrated Well Test Interpretation

- Well Test Response from:
  - Infinite-Acting Reservoir
  - Linear no-flow Boundary
  - Linear Constant Pressure Boundary
  - Circular Constant Pressure Boundary
  - Channel Reservoirs
  - Integrated Well Test Analysis and Interpretation

INSTRUCTOR

Dr. Shahram Pourmohamamadi holds a Ph.D. in Reservoir Technology from the University of Bergen (UiB), Norway, and a Master's degree in Petroleum Engineering from the Norwegian University of Science & Technology (NTNU). With over 19 years of experience as both a reservoir and production engineer, he has gained extensive industry knowledge through roles at prestigious companies, including Weatherford, Aker Solutions ASA, Equinor ASA (formerly Statoil), Spirit Energy (now Sval Energy), and OMV. Additionally, he has a strong research background from SINTEF and NORCE, and has authored 10 technical papers in areas such as reservoir characterization, SCAL (Special Core Analysis), EOR (Enhanced Oil Recovery), and field development. Throughout his career, he has mentored junior staff and educated mid-level petroleum engineers, sharing his extensive knowledge and practical experience. He has also served as an advisor and consultant for both onshore and offshore E&P projects, providing expertise to leading exploration and production companies.

ASPHALTENE IS AN OLD PROBLEM, DO WE HAVE A NEW SOLUTION? (PRO 515)

Asphaltene is a serious flow assurance problem, especially with the increasing application of miscible/immiscible gas injection for EOR/pressure maintenance, acid jobs, gas lift, etc. The current techniques for evaluating and modelling are not adequate. With the development of more accurate devices, it is possible to gain a better understanding of the problem, generate lab data, and computer modelling, hence a better solution.

DESIGNED FOR

Petroleum, production, process, design, drilling engineers/ operators/ technicians/ managers.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The main learning objectives are

- Asphaltenes and their properties
- Conditions that could result in Asphaltene formation and deposition
- Sampling and sample restoration
- Generating accurate experimental data
- Test equipment/techniques
- PVT modelling; Asphaltene modelling;
- Asphaltene inhibitors, dispersants, solvents
- Testing inhibitors in the lab vs field application
- The reasons behind the poor performance of some Inhibitors
- Remove asphaltene deposition
- Monitoring systems
- Modelling deposition simulation
- Case studies

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	4 - 6 Nov	1740 €
Stavanger	2 - 4 Sep	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The main objectives of this course are to give a solid background on the current understanding of asphaltene and offer new experimental equipment and techniques for more accurate experimental data. The new experimental equipment can generate data on the asphaltene phase boundary, the effect of shear, and the temperature gradient on asphaltene deposition. The new experimental setups, which are based on Quartz Crystal Microbalance (QCM), in addition to conventional test equipment, are generating excellent data. More accurate data will result in more accurate modelling, and solutions.

COURSE OUTLINE

Day 1:

- Introduction to asphaltene
- Phase behavior of pure, binary & multi-component systems
- Basic PVT & Importance of matching bubble/dew points
- Conditions that could result in asphaltene destabilization
- Places the asphaltene problems may occur
- Sampling & conditioning
- SARA analysis

Day 2:

- Various tests equipment, their advantages, and disadvantages
- Introduction to Quartz Crystal Microbalance (QCM)
- Effect of shear
- Effect of temperature gradient
- Various test procedures
- Modelling asphaltene
- Tuning & validation
- How to avoid/reduce asphaltene problems
- Asphaltene inhibitors, dispersants, solvents

Day 3:

- Conventional asphaltene tests techniques
- Testing the lab vs field conditions
- Why some inhibitors do not work in field conditions
- Why QCM can provide a more accurate data
- Quality assurance
- Can we recover samples?
- How to remove asphaltene deposits
- Can we develop a monitoring system?
- Modelling asphaltene deposition
- How to use experimental data?
- Case studies

INSTRUCTORS

Professor Bahman Tohidi is an expert on gas hydrates, flow assurance, PVT, phase behavior, and properties of reservoir fluids and $H_2/H_2S/CO_2$-rich systems. He leads the Hydrate, Flow Assurance, and Phase Equilibria Research Group at the Institute of GeoEnergy Engineering, Heriot-Watt University. He is a consultant to major oil and service companies. Bahman is Managing Director of "HYDRAFACT LIMITED" a Heriot-Watt spin-out Company formed in late 2005 with Flow Assurance and PVT as its main area of activity. Bahman has an ongoing research joint industry project on Asphaltene.

Dr. Bahram Soltani is an Associate professor at Petroleum University of Technology, Ahwaz, Iran, since 2013. He has a PhD in Petroleum Engineering from Sharif University. He has more than 3 years of experience as a Production and Process Engineer, NIOC, Agha Jari, Iran, and 10 years of experience as a Senior Reservoir Engineer, NIOC, Ahwaz, Iran. He has more than 20 publications on asphaltenes, both experimental and modeling. Bahram also has active research on Asphaltene.

WELL INTEGRITY IN THE OPERATE PHASE OF THE WELL LIFECYCLE (PRO 516)

This course is designed to provide participants with a thorough knowledge of well integrity management and risk assessment in producing assets. Based on regulatory requirements and using real examples and exercises from around the world, this represents best practice integrity management within the oil and gas industry.

DESIGNED FOR

The course is designed for professionals in the oil and gas industry who are involved in the design, construction, and operation of wells.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course, participants will understand well integrity management principles, have a good understand of the data collection, its management and the tell tales signed of potential problems, the importance of data recording and routine maintenance.

The course is designed to be highly interactive, and using high resolution graphics, 2D models, Video clips and a wide range of slides, attendees will be encouraged to ask questions and participate in the modules. Participants will be asked to complete a questionnaire prior to starting the course so the instructor can adapt the course to the issues identified.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Abu Dhabi	5 – 8 Sep	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course is designed for professionals in the oil and gas industry who are involved in the design, construction, and operation of wells from the following disciplines. The course is very suited for asset managers, safety engineers, production engineers and all persons involved in the well integrity operation.

COURSE OUTLINE

Day 1:

- Introduction to well integrity in the operate phase
- Guidelines and standards
- Material selection
- Well construction
- Well handover, start-up and operate

Day 2:

- MAASP principles and management
- Subsurface safety valves, annulus safety valves and storm chokes
- Christmas trees and wellheads
- Surface valves and tree maintenance
- Equipment failure management and WIMS

Day 3:

- Flow assurance
- Sustained casing pressure
- Asset life extension
- Management of change
- Case studies

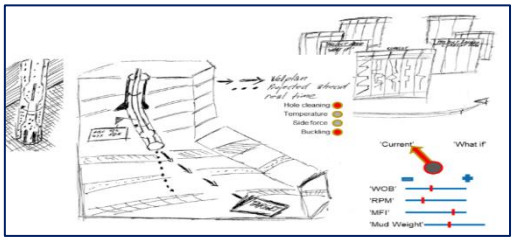
Day 4:

- Risk assessment
- Competency
- Dispensations/Derogations
- Well abandonment
- Wrap up, final Q&A, Team photos, certifications and course assessment

INSTRUCTOR

Simon Sparke is a subject matter expert for Well Integrity in the Operate Phase with over 45 years' experience in the oil and gas industry. He has worked with many of the world leaders and regulators to improve the understanding of well integrity. He was head of Well Integrity for Tullow Oil and pioneered the implementation of a Well Integrity Management System and all the associated documentation and training to support the company wide range of well types and operating environments. This led to the publication of the SPE paper entitled 'Seven Pillars of Well Integrity' (SPE-142449-MS). Since then, he has built more WIMS for various oil companies and provided the associated training and documentation. While working for Tullow, he was a co-author for the first international well integrity standard in the phase of the well lifecycle, ISO – 16530. In conjunction with these achievements, Simon is an established and accredited trainer providing well integrity courses for the international oil and gas community. In 2021 he was awarded the prestigious position of SPE Distinguished Lecturer and uniquely this was extended for a second year, 2024-2024 and will cover two extensive lecture tours. One across USA, and the second covering China, Borneo, Australia, and New Zealand.

REALTIME WELL ENGINEERING: OPTIMIZATION, OPERATIONS MONITORING (PRO 517)



he four-day intense realtime drilling operations course covers most of the basic/advanced engineering and concepts that can be used in realtime for monitoring. The goal is to provide the participants with a solid understanding of the dynamic optimization principles, as well as the analytical and quantitative methods necessary for real time operation monitoring.

DESIGNED FOR

Drilling engineers, well operations personnel, who would like to gain greater understanding of mud motor design and, their applications in drilling.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course, participants will

- enable to understand the general techniques for real-time monitoring
- learn how to use algorithms to calibrate models in real-time
- investigate the ROP optimization, and the role of drilling parameters
- understand the alert mechanism
- understand the problems encountered for optimization during real-time operations
- also materials related to current technologies with real-world examples

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	3 - 6 Nov	1990 €
Stavanger	1 - 4 Sep	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Topics will include techniques of optimization, basic concepts, different optimization methods, hydraulic optimization, different nozzle selection criteria, diamond and roller cone bit weight on bit, rotary speed drilling optimization, hydraulic optimization with special downhole tools, well cost estimation, minimum cost casing design. This course envisages studying algorithms and optimization techniques used in the various stages of drilling and well completion operations. The course will also focus on presenting different optimization methods and expose the participants to variety of problems and solve them successfully. This course also focuses on the latest modeling approaches based on data-driven modeling, machine learning, AI with real-world problems. This course will have practical hands-on class exercises to solve complex problems in practical terms. The course finishes with the team project presentation based on the problem assigned at the start of the class.

COURSE OUTLINE

Day 1:

- Realtime optimization overview
- Dynamic stability
- Data science and hybrid models

Day 2:

- Sensor data monitoring
- Other parameter indicators
- Backreaming stability chart

Day 3:

- Standpipe pressure monitoring
- ECD calculations
- Rheology models
- Flow rate optimization
- Cuttings transport optimization
- Trip speed optimization
- Trip map/chart
- Overall condition
- Stuck pipe indicators
- Cuttings transport optimization
- Trip speed optimization
- Trip map/chart
- Overall condition
- Stuck pipe indicators

Day 4:

- Drilling parameters optimization
- Real-time optimization
- Flat time optimization
- Alerts
- Machine learning models

INSTRUCTOR

Dr. Robello Samuel is a Chief Technical advisor and Senior Technology Fellow working with Halliburton since 1998. He began his career working on rigs as a drilling engineer and has more than 40 years of experience. He is presently a research and engineering lead for well engineering and broader area of cyber-physical systems, artificial engineering intelligence. He is a Distinguished member of the SPE, SPE Distinguished Lecturer, recipient of SPE-GC Drilling Engineering Award, SPE International Drilling Engineering Award, and SPE/AIME Honorary Member. He is concurrently an adjunct professor for 18 years at the University of Houston and 5 years at USC, LA. He has published more than 243 technical papers, holds 94 US patents, and 115 worldwide patents. Dr. Samuel serves regularly as a keynote speaker at major conferences and corporate forums and is regarded as one of the world's most influential contributors to advancement of research and practice in drilling engineering. He holds BS & MS degrees in mechanical engineering, and MS & PhD degrees in petroleum engineering from the University of Tulsa.

WELL TEST ANALYSIS (PRO 518)

The objective of the Well Test Analysis Workshop is to provide a comprehensive theoretical and practical knowledge of well test analysis techniques. Emphasis will be placed on the practical aspects of well testing and numerous class examples and case studies will be offered.

DESIGNED FOR

This course is aimed at reservoir, petroleum, and exploitation engineers/technologists. Other discipline staff; such as geophysicists and geologists who are involved in the field development and exploitation will also benefit from this course.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course, participants will

- Understand the theory in a concise fashion but the focus is on the practical applications for good reservoir management & production optimization
- Learn how to set test objectives and select the appropriate test to meet test objectives including test design.
- Learn how to evaluate data quality and how to analyze various tests using commercial software.
- Get familiar with the latest analysis techniques for conventional and unconventional reservoirs

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	2 - 6 Nov	2490 €
Online	14 - 18 Dec	2490 €
Oslo	16 - 20 Nov	4990 €
Dubai	7 - 11 Dec	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course will illustrate the well test analysis tool is the most effective tool of the reservoir management to make realistic decisions related to reservoir development and well production optimization through actual case studies throughout the workshop. The course will cover the fundamentals concepts of well testing and also the most advanced techniques using the Kappa (Saphir) software, including testing of Multi-stage Frac of Horizontal Wells (MFHW's), Mini fracking (DFIT), multi-phase analysis, deconvolution, rate and time-dependent skin factor, multi-phase, Inflow Control Devices (ICD's), flow behind casing, multi-layers and more. Also, to offer hands-on experience, attendees are encouraged to bring interesting well test data for analysis and discussion in the class, using commercial software. A scientific hand calculator will required for the offered class problems. A detailed course hand-out, which is an excellent reference, will be provided.

COURSE OUTLINE

Day 1:

- Review of the flow equations
- Dimensionless parameters
- Boundary conditions
- Solution of the diffusivity equation (Class problem)

Day 2:

- Build-up test analysis
- Wellbore skin factor and partial penetration
- Wellbore storage
- Draw-down testing (Case study)

Day 3:

- Hydraulically fractured wells
- Practical well testing
- Well test interpretations

Day 4:

- Gas well testing
- Water injectivity tests
- Well test planning and design

Day 5:

- Advanced developments of well test analysis techniques
- Review/analyze well tests provided by attendees including using commercial software
- Closing comments and a question period

INSTRUCTOR

Mr. Saad Ibrahim, P. Eng, president of Petro Management Group Ltd. He has over 35 years of diversified experience in the oil and gas Industry and known as a worldwide highly recognized engineering consultant and a distinguished instructor. He also completed a post- graduate program with the University of Calgary in Chemical and Petroleum Engineering. The focus of Mr. Ibrahim's experience lies in the area of Reservoir management, and well test planning/analysis; analyzed over 20,000 tests worldwide. Mr. Ibrahim is a member of APEGA and SPE.

PERFORMANCE EVALUATION OF HORIZONTAL WELLS (PRO 519)

This course provides a full review of the applications of horizontal wells including Multi-stage frac (MFHW) aspects, design sensitivity analysis to maximize production profile and reserves estimate (P10, P50, P90). Related topics include the use of PTA, RTA, and Mini Frac (DFIT). The application of waterflooding and gas injection in conventional and unconventional reservoirs will be discussed including case studies and the use of numerical modeling

DESIGNED FOR

This course is aimed at the reservoir, petroleum, and exploitation engineers & technologists, geophysicists, and geologists who are involved in field development and exploitation.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

After completing this course, participants will

- Learn how to select optimum well locations to have successful Hz wells and MFHW's.
- Understand how to determine optimum well spacing and estimate well productivity & know how to generate production forecasts (P10, P50-, P90)
- Get familiar with commercial software to optimize frac design.
- Learn enhanced recovery options including waterflooding and gas injection.

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	13 - 15 May	1740 €
Online	21 - 23 Oct	1740 €
Dubai	15 - 17 Apr	3740 €
Muskat	2 - 4 Sep	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course provides in-depth background and state-of-the-art tools necessary to maximize the performance of Hz wells. Practical examples will illustrate how candidate horizontal wells are selected and designed using multi-disciplined team efforts to ensure both technical and economic benefits are maximized. Methods used to predict well performance; such as, expected producing rate, drainage area, and fluid coning will be explained through class problems. Optimization of Multi-stage Fracing of Horizontal Wells (MFHW), including the number frac stages, spacing between the frac stages, size of the fracs, and how to take advantage of the "sweet spots", will be illustrated using advanced software. The art of well test interpretations will be discussed including the benefits of Mini frac (DFIT) to improve the frac design. The challenge of reserves estimate for tight/unconventional reservoirs using advanced decline curve analysis and probabilistic techniques will be reviewed. Excellent course notes will be provided.

COURSE OUTLINE

Day 1:

- Introduction
- Benefits/applications of horizontal wells
  - Benefits of drilling horizontal and directional wells
  - Uncertainties and risk
  - Case studies
- Well productivity
  - Horizontal well drainage area
  - Productivity estimate of multi-stage fracking of Hz wells (MFHW)

Day 2:

- Recent developments in Hz well applications
  - Frac treatment statistical update in North America
  - Application of MFHW's in waterflooding
- Design optimization of multi-stage fracking of Hz wells (MFHW)
  - The number of fracs and well spacing
  - Size of fracs and frac half-length
- Well test analysis (PTA)
  - Flow geometry/regimes for Hz and slanted wells
  - Well test analysis techniques
- Mini frac applications (DFIT)
  - Reasons/benefits of Mini Fracking
  - Diagnose of different types of leak-off

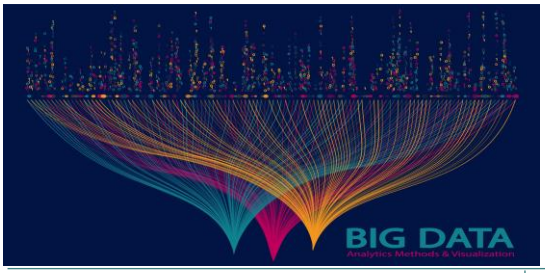
Day 3:

- OOIP/OGIP and reserves estimates
  - Advanced decline curve analysis for tight and unconventional formations
  - Statistical, empirical methods, and well typing techniques
- Fluid coning prediction
  - Determination of the critical rate and time to breakthrough
  - Completion optimizing to minimize water production
- Enhanced oil recovery using MFHW's
  - Oil recovery mechanisms/optimization
- Screening criteria & design considerations for Hz well candidates

INSTRUCTOR

Mr. Saad Ibrahim, P. Eng, president of Petro Management Group Ltd. He has over 35 years of diversified experience in the oil and gas Industry and known as a worldwide highly recognized engineering consultant and a distinguished instructor. He also completed a post- graduate program with the University of Calgary in Chemical and Petroleum Engineering. The focus of Mr. Ibrahim's experience lies in the area of Reservoir management, and well test planning/analysis; analyzed over 20,000 tests worldwide. Mr. Ibrahim is a member of APEGA and SPE.

ADVANCED PETROLEUM DATA ANALYTICS (DAT 600)



This introductory course focuses on petroleum data types (such as field data, lab data, and simulated data) and data analytics tools available today in the context of these data types. During 2 days of the course participants will learn about AI algorithms that have been successfully applied to a variety of petroleum engineering problems, machine learning models and their hybridization with fuzzy logic, and some information theory techniques that you can adopt for your engineering, characterization or decision-making problems.

DESIGNED FOR

This course is designed for practicing petroleum engineers, geologists, geoscientists, and petroleum decision makers who would like to familiarize themselves with the most popular data analytics tools and learn about value that they add to business, operational workflows, and decision making.

COURSE LEVEL

- Beginner to Intermediate

LEARNING OBJECTIVES

Some of the learning objectives of this course include:

- Familiarize and learn to distinguish various basic types of petroleum data.
- Learn to match various data types and data analytics tools.
- Learn to distinguish various data analytics tools.
- Consider multiple popular AI, ML, fuzzy logic, and information theory algorithms and gain deeper understanding of how they were applied to solve various engineering problems.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 8 May	1070 €
Online	2 - 3 Jul	1070 €
Stavanger	9 - 10 Apr	2490 €
Abu Dhabi	4 - 5 Jun	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This beginner two-day course provides broad and yet sufficiently detailed introduction into petroleum data analytics and puts all tools in the context of data that we routinely deal with in petroleum engineering. The course covers several Artificial Intelligence algorithms (evolutionary programming and swarm intelligence), Machine Learning techniques (various types of neural networks, SVM), introduction to Fuzzy Logic and its uses in combination with ML techniques, and information theory approaches (such as Akaike Information Criterion). All algorithms are presented from the conceptual standpoint and illustrated with multiple examples from the petroleum E&P industry.

COURSE OUTLINE

Day 1:

- Introduction and Course Agenda
- Basic types of petroleum data
- Short group exercise in identifying various data types
- AI algorithms introduction
- AI: Evolutionary computation algorithms with application examples

Exercise: Apply EC to an E&P problem

Day 2:

- AI: Swarm Intelligence algorithms with application examples
- Exercise to apply SI to an E&P problem
- Machine learning and most popular ML models. Application examples from E&P industry
- Fuzzy logic and its hybridization with ML models
- Information theory and Akaike Information Criterion uses in petroleum E&P problems
- Discussion
- Adjournment

INSTRUCTOR

Dr. Tatyana Plaksina is an award-winning assistant professor of petroleum engineering at the Department of Chemical and Petroleum Engineering at University of Calgary, AB, Canada. Research interests of Dr. Plaksina include geothermal energy exploitation and numerical modeling of CO_2 sequestration (subsurface fluid dynamics and monitoring), reservoir engineering of conventional and unconventional oil and gas assets, petroleum data analytics, production data analysis (including rate transient analysis (RTA) and decline curve analysis (DCA)), petroleum economics, risk analysis, and petroleum engineering education. Dr. Tatyana Plaksina is an award-winning assistant professor of petroleum engineering at the Department of Chemical and Petroleum Engineering at University of Calgary, AB, Canada. Research interests of Dr. Plaksina include geothermal energy exploitation and numerical modeling of CO_2 sequestration (subsurface fluid dynamics and monitoring), reservoir engineering of conventional and unconventional oil and gas assets, petroleum data analytics, production data analysis (including rate transient analysis (RTA) and decline curve analysis (DCA)), petroleum economics, risk analysis, and petroleum engineering education.

IMPROVED RESERVOIR MODELLING USING ARTIFICIAL NEURAL NETWORK (DAT 601)

Artificial neural networks combined with good geological input data can greatly improve predictability of reservoir parameters and produce more reliable reservoir models. Geological and petrophysical control on data handling and interpretation of results is essential in achieving good results.

DESIGNED FOR

Geoscientists with a basic understanding of sedimentology, reservoir characterization and wireline logs.

COURSE LEVEL

- Intermediate to Advanced

LEARNING OBJECTIVES

The participants will learn:

- Basics of ANN models.
- How to run ANN models using Tiberius software and the associated macros.
- Different types of ANN models.
- How to handle multi output data.
- Define pore types.
- Handle wireline log data.
- Data preparation.
- Pitfalls.
- Interpreting results.
- Model testing.
- Application to uncored wells.
- How to apply results in static reservoir models.

REGISTRATION

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	13 - 15 May	1740 €
Online	2 - 4 Dec	1740 €
Stavanger	15 - 17 Apr	3740 €
Abu Dhabi	4 - 6 Nov	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This 3-day training course will focus on Artificial Neural Networks (ANN) and how this can assist in predicting different reservoir parameters in uncored wells. Participants will learn how to use the Tiberius ANN software and associated macros. A basic introduction to ANN will be given, followed by data gathering, data preparation, running and testing the models, interpreting the results, and a discussion on possible pitfalls. The aim is that course participants will be able to run their own ANN model. This will be achieved through several exercises that cover the entire process from gathering input data to developing, interpreting and testing the models. This will be followed by blind-testing the models against a new well. Finally, the developed ANN model will be applied to uncored wells to improve regional predictability of reservoir parameters.

COURSE OUTLINE

Day 1:

- Introduction of artificial neural network
- Input and output variables
- Importance of correct depth shifting
- Importance on petrophysical evaluation of input wire
- Hidden non-linear neurons
- How to avoid under/ over-training of the network
- Achieving least test data fitting error
- Predictability vs. accuracy
- Application of developed ANN models to wells with missing input variables
- Different predictive models
- Installation of software and associated macros
- Overview of the Tiberius software

EXERCISE: Regression ANN.

Day 2:

- Pore-type classification
- Pore-type control on poro-perm relationships
- Brief introduction to pore-type control on saturation heights

EXERCISE

Day 3:

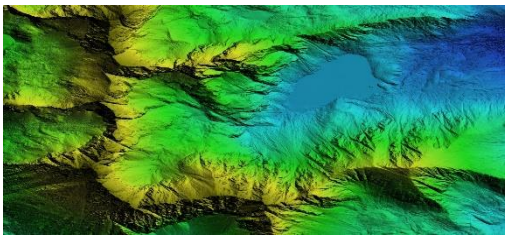
- Classification of ANN analysis
- How to handle multi-output data
- Average hit scores vs. average raw data scores
- Application of macros developed for pore types
- How to modify the macros to handle other output parameters

EXERCISE: Classification of ANN

INSTRUCTOR

Arve Lønøy has 37 years of experience as a carbonate geologist within exploration, production/field development, and research. He also has 6 years of experience on siliciclastic North Sea reservoirs. His main specialty is carbonate sedimentology and diagenesis with special emphasis on reservoir characterization. He has developed several proprietary techniques for static reservoir modelling. Arve published (AAPG 2006) a new pore-type classification system that is applied in prediction of permeability, effective porosity, saturation heights and HC contacts. The predictions are further aided by the use of artificial intelligence, using a time-efficient methodology that he has developed. This new methodology for reservoir characterization, and how it is applied in reservoir modelling, was approved by Beicip-Franlab in 2012 audit.

A PRACTICAL INTRODUCTION TO NON-LINEAR GEOSTATISTICS FOR PETROLEUM RESERVOIRS (DAT 602)



This is a hands-on course to develop skills in the application of non-linear geostatistics to petroleum problems. The suitability of conventional geostatistics techniques to the characterisation of petroleum reservoirs will be discussed. Tools will be developed by the participants to check that spatial datasets meet the assumptions required for kriging-based geostatistics. These tools will help identify situations that conventional geostatistics may not give the best predictions of reservoir behaviour.

DESIGNED FOR

The course is designed for geologists and reservoir engineers who are concerned that the available geostatistics algorithms do not create suitable representations of subsurface architectures.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

Upon completion of this course participants will have:

- An ability to describe a bivariate relationship qualitatively.
- An ability to quantify a linear bivariate relationship.
- An understanding of marginal distributions and conditional distributions and their application to geostatistics.
- The ability to define a copula and explain how this can capture a complex relationship between two variables.

REGISTRATION

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	13 - 15 May	1740 €
Paris	15 - 17 Apr	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Non-linear statistics will be introduced to enable the participants to understand and analyse non-linear bivariate relationships and to quantify departures from linear behaviour. These techniques will be useful in the investigation of porosity and permeability estimations from wireline logs.

Conventional geostatistics assumes a linear spatial dependence model and this course will explain what the assumption really means in practice and how spatial datasets may be analysed to test that this assumption is met using commercially available software. Departures from linear spatial dependence will be discussed and the impact of non-linear spatial dependence on flow behaviour will be considered.

COURSE OUTLINE

Day 1:

- Statistics refresher
- An introduction to copulas
- Copulas in Excel- analysis and fitting

Day 2:

- Problems with Conventional Geostatistics How to Spot Them
- Introduction to Spatial Copulas
- Geostatistical Interpolation and Simulation Using Copulas

Day 3:

- Spatial Copulas in Python - Analysis and Copula Fitting
- Copula Simulation in Python

INSTRUCTOR

Professor Stephen Tyson is the Chair Professor in Petroleum Engineering at Universiti Teknologi Brunei and is responsible for the development of teaching and research in this area. Previously he was the Chair of Subsurface Modeling at the Centre for Coal Seam Gas and Director of the Centre for Geoscience Computing in the School of Earth Sciences at The University of Queensland. He has worked in reservoir characterization and modeling in the oil industry for more than 30 years in both conventional and unconventional reservoirs. He has worked extensively in the Asia-Pacific and Australia. His current research interests are in model validation, verification and acceptance criteria for both static and dynamic models, upscaling, uncertainty modeling and non-linear geostatistics. He is also an honorary professor in Petroleum Engineering at the University of New South Wales and EAGE instructor.

PYTHON PROGRAMMING FOR GEOSCIENTISTS AND ENGINEERS (DAT 603)

We are moving into a post-Excel world. The data analysis requirements facing most geoscientists, petrophysicists, geophysicists, geologists and geomodellers, are beyond the capability of spreadsheets or at least are extraordinarily hard in spreadsheets. Python offers significant benefits over Excel and has readily available tools to move data into and out of Excel.

DESIGNED FOR

The course is designed for geologists and reservoir engineers who want to become more effective at manipulating data, automating repetitive tasks in MS Office, and produce better visualisations of numerical information.

COURSE LEVEL

- Beginner to Intermediate

LEARNING OBJECTIVES

The learning objectives of this course are for students to develop:

- An understanding of the opportunities that Python offers to geoscientists.
- An ability to easily migrate data between Excel and Python using Pandas.
- Understanding of basic Python syntax.
- Understanding of packages that give additional functionality to Python; Numpy, SciPy, Matplotlib, etc.
- An ability to display data using richer visualization tools.
- Sufficient knowledge of Python so that the participant can easily extend their capabilities using readily available tutorials and sandboxes.

REGISTRATION

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	7 - 9 Oct	1740 €
Amsterdam	24 - 26 Nov	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course offers a practical introduction to using Python for typical geoscience and reservoir engineering problems and is organized around the accomplishment of common tasks effectively in Python, rather than as a Python-focused course. By the end of the course participants will have installed a python environment on their laptops and have created a series of notebooks that will automate repetitive tasks, assist with data analysis and interface with Microsoft Excel. They will also be able to create impressive data visualizations and plots as standalones or integrated into reports and presentations.

COURSE OUTLINE

Day 1: Using wireline data

- Python syntax
- General introduction to Python
- Data types and their basic operations
- Data structures
- Statements (if, for, while)
- Loops using the range function
- Defining functions
- Python tools
- Visualisations
- Advanced statistics

Day 2: Using mapping data

- "Scientific" Python
- NumPy (arrays, numeric data processing, indexing)
- SciPy (SciPy.stats, SciPy.spatial)
- Pandas
- Data visualization using Matplotlib

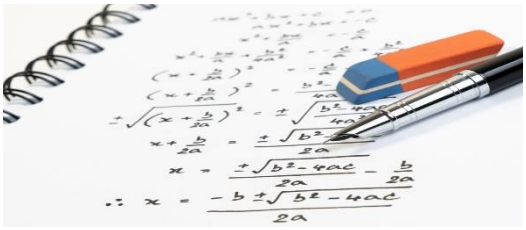
Day 3: Interfacing with MS Office

- Automating Word
- Automating Powerpoint
- Creating Word documents and Powerpoint presentations from Excel

INSTRUCTOR

Professor Stephen Tyson is the Chair Professor in Petroleum Engineering at Universiti Teknologi Brunei and is responsible for the development of teaching and research in this area. Previously he was the Chair of Subsurface Modeling at the Centre for Coal Seam Gas and Director of the Centre for Geoscience Computing in the School of Earth Sciences at The University of Queensland. He has worked in reservoir characterization and modeling in the oil industry for more than 30 years in both conventional and unconventional reservoirs. He has worked extensively in the Asia-Pacific and Australia. His current research interests are in model validation, verification and acceptance criteria for both static and dynamic models, upscaling, uncertainty modeling and non-linear geostatistics. He is also an honorary professor in Petroleum Engineering at the University of New South Wales and EAGE instructor.

PRACTICAL MATHEMATICS FOR PETROLEUM GEOLOGISTS (DAT 604)



Nowadays, with the advent of new technologies, a huge amount calculations and mathematical relations are performed readily. Thus, it caused many engineers do not know underlying mathematics and how the problem is solved. This course is designed to teach underlying mathematics to petroleum geologists.

DESIGNED FOR

The course is designed for geologists and geophysicists who wants to be more familiar with Mathematics and its application on their daily work.

COURSE LEVEL

- Beginner to Intermediate

LEARNING OBJECTIVES

The learning objectives of this course are:

- An understanding of the basic mathematics.
- Better Excel skills and an ability to.
- Using Excel efficiently in E&P challenges.
- An understanding of the principles of scripting to run software more effectively.

REQUIREMENTS

- A perceived inability to do math
- A basic knowledge of Excel is needed.
- Upstream petroleum E&P knowledge is also useful to get the most out of this course.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	25 - 26 Jun	1070 €
Online	3 - 4 Dec	1070 €
Stavanger	28 - 29 May	2490 €
Abu Dhabi	15 - 16 Oct	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

As the petroleum industry places an increasing reliance on software and technology, the underlying math is largely hidden from the users and those who understand this math have a significant career advantage. Participants on this course will benefit from a sympathetic approach to bring their practical math skills up to speed.

COURSE OUTLINE

Day 1:

- Overview of mathematics in E&P
- Class discussion on additional topics or areas of significant weakness that need more attention
- Probability and statistic
- Types of data, scales of measurement and uncertainty in received data
- A short review of probability including Bayes theory
- Univariate and bivariate statistics

Day 2:

- Trigonometry and Geometry
- Distance, areas and volumes
- Coordinate system
- Data fitting and testing
- Linear and non-linear relationships
- Goodness of fit
- Parameter estimation
- Confidence limits
- Advanced Excel skills

INSTRUCTOR

Professor Stephen Tyson is the Chair Professor in Petroleum Engineering at Universiti Teknologi Brunei and is responsible for the development of teaching and research in this area. Previously he was the Chair of Subsurface Modeling at the Centre for Coal Seam Gas and Director of the Centre for Geoscience Computing in the School of Earth Sciences at The University of Queensland. He has worked in reservoir characterization and modeling in the oil industry for more than 30 years in both conventional and unconventional reservoirs. He has worked extensively in the Asia-Pacific and Australia. His current research interests are in model validation, verification and acceptance criteria for both static and dynamic models, upscaling, uncertainty modeling and non-linear geostatistics. He is also an honorary professor in Petroleum Engineering at the University of New South Wales and EAGE instructor.

ARTIFICIAL LIFT AND REAL-TIME OPTIMIZATION IN DIGITAL OILFIELD (DAT 605)

Current pricing scenario and related cost savings and efficiency improvement drivers demand that existing assets are utilized to the fullest extent. Digital oilfield tools and techniques have been proven to address and solve optimization challenges in conventional as well as unconventional production oil fields. This one-day course will provide overview on Artificial Lift and Real-Time Optimization in Digital Oilfield.

DESIGNED FOR

- Anyone interested in learning about what digital oilfield means for artificial lift and product optimization
- Production, reservoir, completion, drilling and facilities engineers
- Project and asset managers interested in improving performance of their assets

COURSE LEVEL

- Intermediate to Advanced

LEARNING OBJECTIVES

- This course will help trainees understand and appreciate related aspects while providing them applicable solution paths.

PREREQUISITES

- Understanding of petroleum production concepts.
- Attendees should have petroleum engineering background or at least five years of working experience in the industry.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	10 Jul	570 €
Stavanger	3 Jun	1120 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Besides more common surface controls and related remote management approaches, the production dynamics requires us to rethink about application of real-time downhole and surface sensing. Software tools available to analyze field data are inadequate. This one-day course is designed to give trainees an overview of artificial lift issues and production optimization. With the increasing need to optimize dynamic production in highly constrained cost environments, opportunities and issues related to real-time measurements and optimization techniques needs to be discussed and understood. Besides introducing participants to the basics of artificial lift and real-time measurements, the training addresses how digital oilfield tools help address these challenges. Artificial lift selection and life cycle analysis are covered. Recent advances in real-time approaches to the production monitoring and lift management are also discussed using field case studies. The course closes with a session wherein trainees would discuss their challenges and plans for production using digital oilfield.

COURSE OUTLINE

- Basics of Artificial Lift and Production Optimization
  - Lift Life Cycle and Elimination process
  - Specific Lift management challenges
- What is Digital Oilfield?
  - Wellsite tools
  - Desktop tools
  - Application case studies
- Real-time Downhole Measurements for optimization
  - Available Technologies
  - Role of software in visualization, analysis and surveillance
  - Application case studies

INSTRUCTOR

Dr. Rajan Chokshi works as an artificial lift and production 'Optimizer' for Accutant Solutions, a consulting firm out of Houston, USA. He has over 34 years of experience working with a national oil company, research consortia, consulting and software firms, and a service company in various roles from engineer, software developer, project manager, trainer, consultant, and a senior business leader. Dr. Chokshi has worked on projects globally in the areas of multi-phase flow, artificial lift, production optimization, and real-webinars and trainings, Dr. Chokshi continues to conduct workshops for practicing professionals globally in SPE and private forums. As an adjunct faculty, he has taught at Texas Tech, Missouri S&T, U of Southern California, and continues to teach at the U of Houston. He has served on various SPE committees like production & facilities advisory, global training and production awards. He is incoming chair of awards & recognition committee. He was co-chair of an SPE artificial lift workshop, and is co-chair of SPE forum on production issues in unconventional.

Petroleum Data Analytics (DAT 606)

Petroleum Data Analytics (PDA) is the application of Artificial Intelligence (AI) and Machine Learning (ML) in the oil and gas industry. The future of our industry will be highly influenced by PDA. Engineering-domain experts who become highly skilled AI and ML practitioners are the ones who will control the future of engineering disciplines, including petroleum engineering.

DESIGNED FOR

This course is designed for Petroleum engineers and geoscientists as well as managers and decision makers in NOCs, IOCs, Independents, and Service Providers. In general, those involved in planning, and decision making of hydrocarbon assets are the main target audience.

COURSE LEVEL

- Intermediate to Advanced

LEARNING OBJECTIVES

This course will demonstrate the power of Artificial Intelligence and Machine Learning and the difference they can make for informed decision making when it comes to accomplishing important short-term, mid-term and long-term objectives. This course will also show how to distinguish between realistic application of AI and Machine Learning versus marketing ploys.

PREREQUISITES

Understanding of petroleum engineering concepts. Attendees should have petroleum engineering background or at least five years of working experience in the industry.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Stavanger	1 – 5 Jun	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Becoming an engineering-related AI and ML expert practitioner requires fundamental understanding and extensive experience using AI and ML to solve engineering-related problems. The objective of this weeklong course is to provide the required and realistic foundations of Petroleum Data Analytics to the new generation of petroleum professionals that have recognized the potential of AI and ML in our industry. Clearly, short courses will not cover or provide all that is necessary for petroleum professionals to become true PDA experts. However, a week such as this will play a crucial role for the enthusiast of this technology in identifying the scientific realities associated with the foundation of AI and ML and its true application in PDA.

COURSE OUTLINE

DAY 1:
- Definitions and brief history
- Modeling physics using AI
- Engineering Application of AI
- Traditional statistics versus AI
- Hybrid models

Day 2:
- Artificial neural network
- Fuzzy set theory
- Evolutionary computing
- Explainable AI
- AI-Ethics

Day 3:
- Top-down modelling
- Geo-Analytics: AI-base geological modelling
- Actual case studies

Day 4:
- Traditional proxy modelling
- Smart proxy modelling
- AI-based carbon capture & storage
- Case studies

Day 5:
- Shale analytics
- Case studies
- AI-based modelling of Frac-Hit
- AI-based Production Allocation of Stages/Cluster via Fiber Optics

INSTRUCTOR

Professor Shahab D. Mohaghegh, a pioneer in the application of Artificial Intelligence, Machine Learning and Data Mining in the Exploration and Production industry, is Professor of Petroleum and Natural Gas Engineering at West Virginia University and the president and CEO of Intelligent Solutions, Inc. (ISI). He holds B.S., M.S., and Ph.D. degrees in petroleum and natural gas engineering. He has authored three books (Shale Analytics- Data Driven Reservoir Modeling- Application of Data- Driven Analytics for the Geological Storage of CO2), more than 170 technical papers and carried out more than 60 projects for independents, NOCs and IOCs. He is a SPE Distinguished Lecturer and has been featured four times as the Distinguished Author in SPE's Journal of Petroleum Technology (JPT). He is the founder of Petroleum Data-Driven Analytics, SPE's Technical Section dedicated to AI, machine learning and data mining. He has been honored by the U.S. Secretary of Energy for his technical contribution in the aftermath of the Deepwater Horizon (Macondo) incident in the Gulf of Mexico and was a member of U.S. Secretary of Energy's Technical Advisory Committee on Unconventional Resources in two administrations (2008-2014). He represented the United States in the International Standard Organization (ISO) on Carbon Capture and Storage (2014-2016).

MACHINE LEARNING GUIDE FOR OIL AND GAS USING PYTHON (DAT 607)

Machine learning (ML) is a type of artificial intelligence (AI) that allows engineers to predict a process without considering the physical process or governing equations. Machine learning algorithms tailor historical data such as production history as input to predict the outcome such as oil production in the future. This 5-day course aims to address this issue in various aspects of petroleum engineering.

DESIGNED FOR

- Engineers, software developers, data scientists, data engineers, data enthusiasts, business analysts, financial analysts, technical support, university professors, and even executives that would like to learn about this fascinating field
- Anyone in the organization who has the slightest passion for implementing AI, ML
- Advanced Python and ML users

COURSE LEVEL

- Intermediate to Advanced

LEARNING OBJECTIVES

Participants will learn:

- Learn basics fundamentals of Python programming.
- Deploy Oil and Gas related machine learning models.
- Learn fundamentals of the most used ML algorithms in the O&G industry.
- Heavy focus on optimization.
- Step by step code illustration using Python.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	19 - 23 Oct	2490 €
Stavanger	24 - 28 Aug	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

In this course, we will teach participants various machine learning techniques and tools necessary to train, test, and apply a model from scratch. We will use open source and easy to learn language such as Python to build workflows using different libraries (pre-built code samples) to perform various tasks in an interactive session. In other words, we make the entire coding experience and set up easy, pleasant, and straightforward. There is no need to have any experience in machine learning, data science, linear algebra, or coding. We will teach every step of the way, anyone in the organization who has the slightest passion for implementing AI, ML and deciphering essential information from the data is welcomed to attend. We will also accommodate those who have a higher level of experience with implementing AI and ML using python.

COURSE OUTLINE

Day 1:

- Machine Learning and Python applications
- Python installation (Anaconda installation)
- Jupyter Notebook interface and functionalities
- NumPy

Day 2:

- Pandas data frame processing with completions data set examples
- Data visualization with Matplotlib and Seaborn

Day 3:

- Data preprocessing
- Model Building for real-time drilling and production applications
- Unsupervised machine learning

Day 4:

- Introduction to predictive model characteristics
- Linear Regressions for production optimization
- Logistic Regression for geologic facies classification
- K-Nearest Neighbor (KNN) for geologic log imputation
- Decision Trees (DT) and Random Forest (RF) for completions design optimization
- Support Vector Machine (SVM)

Day 5:

- Neural Networks for sonic log generation and CUM/ft production forecasting
- Model Evaluation for drilling, completions, reservoir, …

INSTRUCTOR

Hoss Belyadi is the founder and CEO of Obsertelligence, LLC, focused on providing artificial intelligence (AI) in-house training and solutions. Mr. Belyadi has served as an adjunct faculty member at multiple universities, including West Virginia University, Marietta College, and Saint Francis University. There, he taught data analytics, natural gas engineering, enhanced oil recovery, and hydraulic fracture stimulation design. Mr. Belyadi has over 12 years of experience working in various conventional and unconventional reservoirs across the world. He has worked on various machine learning projects and held short courses across various universities, organizations, and the department of energy (DOE). Mr. Belyadi is the primary author of "Hydraulic Fracturing in Unconventional Reservoirs (1st and 2nd editions) and is the author of "Machine Learning Guide for Oil and Gas Using Python." Hoss earned his BS and MS, both in petroleum and natural gas engineering from West Virginia University.

PYTHON PROGRAMMING FOR OIL AND GAS INDUSTRY (DAT 608)

Computer program is the backbone of modern and sophisticated software that we use in the oil and gas industry. Learning how to program with Python will provide professionals with a "Swiss Army knife" of approaching any complicated problem and solve it. If you want to have this skill, this course is perfect for you.

DESIGNED FOR

- Professionals or consultants working in the geology and geophysics, reservoir engineering and production domain.
- Exceptional students or fresh graduates in geosciences and petroleum majors who are seeking to gain new skill in programming.
- No prior knowledge is required. However, participants who has domain knowledge is a plus.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

You will gain new knowledge and experience in these things:

- Writing effective programs with python language
- Learning the basics and some advanced techniques of data analysis and visualizations
- Well-log data visualization and petrophysical analysis
- Numerical methods for reservoir engineering
- Production data analysis and forecasting

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	10 - 14 Aug	2490 €
Online	6 - 10 Dec	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

This course has a bootcamp system, means you will learn to write efficient programs with Python language and practice the skills to work on some real field datasets and use-cases. Variety of topics will be introduced; From wrangling oil and gas data, techniques of data analysis, data visualization, numerical methods, well-log analysis, reservoir engineering analysis, to production forecasting. This course will be different from regular programming courses taught in universities; it teaches more about applications rather than concepts.

COURSE OUTLINE

Day 1:

- Using NumPy for numerical operation
- Speeding up for-loop with list comprehension
- Making scientific plots with Matplotlib
- Data input and output with NumPy and Pandas
- Interpolation with SciPy

Day 2:

- Loading spreadsheets and data cleansing
- Techniques of data analytics with Pandas
- Making bar graph, pie chart, box plot, and KDE plot
- Interactive plotting with Plotly
- Missing data issues and how to handle

Day 3:

- Loading well-log data in LAS format
- Visualization of well log data
- Multivariate analysis with Seaborn
- Histogram and scatter plots
- Petrophysical calculation

Day 4:

- Regression with SciPy
- Reservoir mapping with Matplotlib
- Volumetric analysis
- PVT correlation to generate reservoir fluid properties
- Well-test simulation

Day 5:

- Time-series analysis of production data
- Visualization of production data
- Removing outliers of production data
- Decline curve analysis step-by-step
- Uncertainty analysis in decline curve analysis

INSTRUCTOR

Yohanes Nuwara currently leads Sustainability Digital Solutions at Asia Pulp and Paper (APP). He is also an Expert Data Scientist at the same company where he is currently working on computer vision and predictive analytics for natural resources. Prior to his current position, he has had 2 years of experience in the oil and gas industry. He has been giving consulting and teaching sessions on programming at SPE and universities across the world, for example at Marietta College in Ohio, USA. His clients were professionals from PTTEP, Shell, Chevron, and many more. In 2020, he was a DAS fiber-optic technical expert at OYO Corporation and RITE research institute, Japan, and he was part of the Gundih CCS Pilot Project in 2019 where he contributed to geophysical modelling of CO_2 storage in gas fields. He also has developed many open-source softwares for geoscience, reservoir engineering, and petrophysics. He is still actively researching machine learning for the industry, exploring digital use-cases for energy transition and sustainable companies.

DATA ANALYTICS WORKFLOWS FOR ARTIFICIAL LIFT, PRODUCTION AND FACILITY ENGINEERS (DAT 609)

Data analysis means the process of cleaning, inspecting, transforming, and modeling data to discover new, helpful information and supporting decision-making. In this hands-on course, the participants learn data analysis and data science techniques and workflows applied to petroleum production (specifically artificial lift) while reviewing code and practicing.

DESIGNED FOR

Primarily intended for artificial lift, production and facilities engineers and students to enhance their knowledge base, increase technology awareness and improve the facility with different data analysis techniques applied on large data sets.

COURSE LEVEL

- Intermediate to Advanced level

LEARNING OBJECTIVES

You will gain new knowledge and experience in these things:

- a set of tools and some pathways to analyze and manipulate their data in the cloud, find trends, and develop data-driven models.
- several business use cases that are amenable to data-driven workflows
- opportunity to solve a problem and tweak solution variables using a provided data set

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	12 - 13 Nov	1070 €
Stavanger	10 - 11 Dec	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The main objective is to provide insight and understanding of data analytics and machine learning principles through applications. The focus is on developing data-driven models while keeping our feet closer to the underlying oil and gas production principles.

COURSE OUTLINE

Day 1:

- Digital Oil field and Applications in artificial lift
  - What/Why/How of Digital Oil field / Digital Transformation
  - Enablers of DoF in Artificial Lift
  - If AL teams generate so much data, why are we not extracting the most value?
  - Managerial challenges and change management
- Basics of Data Analytics
  - What is ML/ AI?
  - Popular Machine Learning Algorithms
  - Regression vs. Classification vs. Clustering in Supervised & Unsupervised approaches
  - What to do after the coding is done? Deployment challenges
- Data workflows & Best Practices in Data Exploratory analysis
  - Available data: Streaming (Real-time or time-series) vs. Static (non-streaming)
  - The required data frequency
  - Data cleaning practices
  - Best practices on data exploratory analysis
- Rod Pump Dynamometer Card Classification
  - The problem, input, and output variables definition
  - Neural Network Development
  - Data set

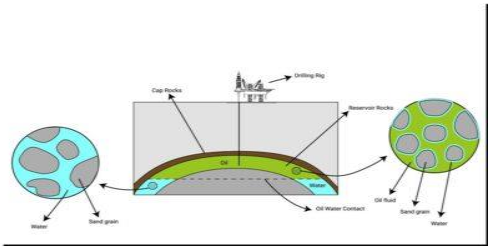
Day 2:

- Flow Pattern Prediction
  - Problem, input, and output variables definition
  - Data set
  - Different ML / AI solutions
- Gas Lift Slugging
  - Problem, input & output variables
  - Regression Solution
- Virtual Flow Meter
  - The problem, dataset - input/outputs
  - Two- or three ML solutions

INSTRUCTOR

Dr. Rajan Chokshi works as an artificial lift and production 'Optimizer' for Accutant Solutions, a consulting firm out of Houston, USA. He has over 36 years of experience working with a national oil company, research consortia, consulting and software firms, and a service company in various roles from engineer, software developer, project manager, trainer, consultant, and a senior business leader. Dr. Chokshi has worked on projects globally in the areas of multi-phase flow, artificial lift, production optimization, and real-webinars and trainings, Dr. Chokshi continues to conduct workshops for practicing professionals globally in SPE and private forums. As an adjunct faculty, he has taught at Texas Tech, Missouri S&T, U of Southern California, and continues to teach at the U of Houston. He has served on various SPE committees like production & facilities advisory, global training and production awards. He is incoming chair of awards & recognition committee. He was co-chair of an SPE artificial lift workshop, and is co-chair of SPE forum on production issues in unconventional.

RESOURCE AND RESERVES ASSESSMENT AND PROJECT ECONOMICS (ECO 700)



This course is aimed at Geoscientists and Reservoir Engineers that need to understand the definitions of what constitutes Resources and Reserves, what differentiates them, fundamentals of Economics, how to run a cashflow simulation, and ultimately how to ranks projects on their technical and economic merits.

DESIGNED FOR

The course is designed for:

- Geoscientists (Geology, Geophysics & Petrophysics)
- Reservoir, Petroleum, Facilities and Drilling Engineers
- Anyone interested in the Petroleum Economics

COURSE LEVEL

- Intermediate to Advanced

LEARNING OBJECTIVES

Participants will learn:

- Present-day World Reserves and Production trends.
- Reserves and Resources definitions.
- World Petroleum economic trends.
- CAPEX, OPEX, ABBEX, Income, Royalties & Taxes.
- Cost Recovery and ring-fencing.
- Economic Metrics for assessing projects.
- FDP Workflow; Gas-Handling & HSE.
- Assess the economic merit/ risks of this Field Development and rank them.
- Defend the merits of their proposed Field Development Plan before Peers.

REGISTRATION

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2026 Schedule and Tuition

Online	20 - 22 May	1740 €
Online	21 - 23 Oct	1740 €
Stavanger	22 - 24 Apr	3740 €
Dubai	4 - 6 Nov	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The course begins with a detailed overview of world resources/ reserves and production trends. This is followed by a review of the definitions of Reserves as opposed to Contingent and Prospective Resources and what differentiates them. This is followed by Volumetric Resources Computation, with emphasis on establishing Net-Pay and the selection of cut-offs and fluid contacts. Deterministic and Probabilistic approaches to resource and reserves computations are explained, including the use of dynamic models' outputs to do this. After a brief overview of world petroleum resources, participants are taught the key economic definitions, CAPEX, OPEX, ABBEX, Royalties and Taxes and Cost Recovery. Project Economics and Cashflow modelling are explained together with the Economic metrics used to screen and benchmark projects. The teaching classes are complemented by a tutorial with detailed instructions where each participant students will carry out a cashflow simulation on a Field development Plan (FDP) that is supplied and which they need to assess and run full economic to determine its viability and optimization using the various economic metrics given.

COURSE OUTLINE

Day 1:

- Volumetric Resources Computation
- Capillary Pressure & Fluid Contacts
- In Place & Recoverable Oil & Gas Resources Prepare Workflow Schedule
- Deterministic & Probabilistic Calculation of Oil & Gas Resources (Monte-Carlo)
- World Resources & Production
- World Resources & Production Trends
- Reserves & Resource Definition

Day 2:

- Economics
- Introduction
- Definitions of Field Development Financial & Cost Recovery Structure
- Ring Fencing
- Economic & Financial Definitions
- Production Contracts
- Cashflow Modelling
- Economic Metrics & Benchmarking

Day 3:

- Tutorial
- Complete & Present Results

INSTRUCTOR

Jean-Marie Questiaux has over 40 years' experience in Oil and Gas Industry covering onshore and offshore Exploration and Production, specialized in the Integration of Geomodelling and Reservoir Engineering; Field Development, Project Economics and Risk Evaluation (Technical & Economics). Former Positions held include Exploration Manager in Libya & Angola (PetroFina) Exploration Manager in Bolivia (Total) and Subsurface Technical Director Nigeria (Addax), Teaching Fellow. Institute of Petroleum Engineering (Heriot Watt University). Specialized in Integrated Studies associated to Field Developments (Green and Brown Fields) integrating G&G, Petrophysics, Reservoir Engineering, Production Technology; Resource Estimation & Project Economics. He is expert in Subsurface Project Set-up, Management, Review and Sanctioning, Corporate Strategy, Short & Medium

UPSTREAM PETROLEUM ECONOMICS: FISCAL SYSTEM MODELLING AND RISK ANALYSIS (ECO 701)

PetroTeach offers this 5-day course on economic analysis involving asset acquisitions, lease-buy assessments, exploration drilling options, oil and gas field development, equipment purchases and fiscal negotiations.

DESIGNED FOR

- All disciplines of petroleum engineering
- G&G's
- Corporate Planning & Strategy
- General/ Executive Managers
- Finance and Accounts/ Analysts
- Production Sharing

COURSE LEVEL

- Intermediate to Advanced

LEARNING OBJECTIVES

Participants will:

- Understand oil & gas economic evaluations and investment decision methods.
- Identify the main components and construct cash flow projections for upstream petroleum projects.
- Determine key elements and determinants of oil and gas investment decisions with due consideration to fiscal.
- Understand and apply economic indicators to assess oil & gas industry projects under various fiscal regimes.
- Quantify and Manage uncertainty and risk faced.

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 5 Jun	2490 €
Online	14 - 18 Dec	2490 €
Stavanger	4 - 8 May	4990 €
Abu Dhabi	2 - 6 Nov	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The program describes fiscal instruments and contract terms in oil and gas fiscal regimes governing petroleum exploration and production operations worldwide with comparative analysis of the resulting take statistics and economic metrics. In addition, the course presents how the economic value of oil and gas ventures and businesses are determined and applied in rational economic decision process. The mechanics of estimating the effects of fiscal instruments on total government takes, E&P economics, and overall take statistics are simulated in-class by participants.

COURSE OUTLINE

Day 1:

- Classifications of resources & reserves
- Reserves definitions and estimation methods
- Production decline equations and analysis
- Factors driving upstream costs and cost dynamics

Day 2:

- Capital sourcing for oil and gas projects
- Project performance models
- Capital recovery mechanisms
- Cash flow classification
- IRR and its limitations
- Decision rules & interpretations of indicators
- NPV profile, Fisherian effects and incremental economics

Day 3:

- Economic rent theory and rent extraction spectrum
- Why fiscal systems?
- Features of Concessionary & Contracture regimes
- Fiscal instruments & contract terms
- Designing fiscal terms
- Fiscal system comparisons
- Cost recovery specifications
- Profit oil sharing mechanism
- PSC specific provisions & implications
- Stakeholder mutuality of interests and concerns

Day 4:

- Probability distributions and curves
- Stochastic model specifications
- Setting simulation preferences
- P-values and expectation curves and stochastic outputs

Day 5:

- Develop and apply deterministic contractual and concessionary economic cash flow models
- Demonstrate stochastic analysis of contractual and concessionary economic cash flow models

INSTRUCTOR

Professor Wumi Iledare has over 25 years of professional experience in petroleum economics. He is the Africa Region Director on the SPE International Board of Directors and the GNPC Chair in Oil and Gas Studies, University of Cape Coast, Ghana. He is Professor Emeritus of Petroleum Economics and Policy Research at the Center for Energy Studies, Louisiana State University, USA. He is an expert in fiscal system economics, petroleum project economic risk and uncertainty analysis and geopolitics of oil and gas resources, is a distinguished fellow and Immediate Past President of the Nigerian Association for Energy Economics (NAEE), and the 2008 President of USAEE. He was an Associate Editor of the SPE Economics and Management Journal and a former editor of the USAEE Dialogue publication of the United States Association for Energy Economics.

EXPLORATION VALUATION AND DECISION ANALYSIS (ECO 702)

The aim of this course is to provide the skills needed to analyze and evaluate exploration decisions. Finding hydrocarbon resources is an uncertain business. While historically most wildcat wells became dry holes, some successful wells have also led to business success. Then, what is a good exploration opportunity?

DESIGNED FOR

This course is suitable to a wide range of professionals including:

- Technical staff interested in decision-making side of exploration
- Commercial staff interested in gaining in-depth knowledge of valuation & analysis
- Managers involved in exploration decisions
- Researchers & practitioners who aim to broaden their knowledge of exploration valuation

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of the top-most level content of the course are:

- Increase the general understanding of investments in an uncertain environment
- Raise awareness about sources of uncertainty in exploration, both subsurface and commercial
- Opens the door to more informed exploration decisions

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	3 - 5 Jun	1740 €
London	6 - 8 May	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

In this online course, we will cover the art and science of making hydrocarbon exploration decisions. Our goal is to familiarize the participants with an understanding of decisions, their relevant uncertain factors, and show them a consistent valuation of exploration opportunities. This course holds three modules (over three days), twelve hours in total.

COURSE OUTLINE

Day 1:

- Understanding key decisions
- The value chain for exploration (& development) of hydrocarbons
- Economic decision analysis, why we make decisions based on expected values?
- Key aspects of petroleum exploration decisions

Day 2:

- Risk vs. uncertainty; a discussion about subsurface & oil market
- Discounting for time & risk
- Corporate finance & commodity markets
- Practical aspects of exploration decisions
- Case study: Exploration in a mature area

Day 3:

- Decision Trees; how to model exploration opportunities
- Conditional Probabilities: Bayesian approach
- Value of information, real options, & value of flexibility
- Case study: Valuation challenges of frontier exploration
- Case study: Value of seismic information

INSTRUCTOR

Dr. Babak Jafarizadeh is an engineering economist. He thinks engineering is about economic solutions to the technical challenges of an uncertain world. He has worked as a senior analyst at Equinor, supporting investment decisions for multi-million-dollar projects across the globe. He is also an industry expert, a faculty member of petroleum engineering at Heriot-Watt University, and a lecturer at the University of California, Berkeley. He teaches and conducts research on the art and science of economic decision analysis.

Babak's interests are at the intersection of decision analysis and corporate finance, with applications in engineering and industry. He is the author of the book "Economic Decision Analysis". He holds a PhD in Investment and Decisions Analysis (University of Stavanger, Norway) as well as MSc and BSc degrees in industrial engineering.

ECONOMIC EVALUATION OF OIL AND GAS DEVELOPMENT PROJECTS (ECO 703)

This course is designed for learning the basics of petroleum economics and project selection. Knowing these basics would help petroleum engineers to make their decisions based on economic viability in addition to technical viability.

DESIGNED FOR

The course is designed for managers, Oil & Gas Auditors, subsurface professionals of all disciplines (petroleum engineers, geologist, geophysicist), planners and those who are new to commercial section.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of the top-most level content of the course are:

- Understand various economic terms used in the Oil & Gas industry like time value of money, cash-flow models, CAPEX, OPEX, IRR, NPV.
- Understand how to develop economic models of oil and gas projects.
- Perform cash flow analysis, different economic evaluation for oil and gas development projects and determine economic indicators.
- Analyze the economic results and carry out sensitivity analysis.

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	9 - 10 Jul	1070 €
Online	19 - 20 Nov	1070 €
Kuala Lumpur	16 - 17 Jun	2490 €
London	3 - 4 Dec	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Several main concepts that will be covered are the net present value, cash flow basics, common economic indicators, CAPEX, OPEX and Internal Rate of Return. This course mainly uses Excel to Practice the hands on experience in building two real economic evaluation models and solving case study based examples

COURSE OUTLINE

Day 1:

- Introduction
- Why do we carry out economic evaluation?
- Different types of projects throughout the life of an oil/ gas field
- Various phases of Exploration-Production
- Main economic evaluation gates for projects
- Economic concepts (CAPEX, OPEX, cash flow, NPV, IRR …)
- Evaluation process
- Profitability indicators
- Risks and uncertainty in oil and gas investment

Day 2:

- Introduction to Spreadsheet Calculation
- Simple Cash Flow using Excel
- Hands on Exercise on Economic Evaluation
- Sensitivity Analysis (Spider Plot)

INSTRUCTOR

Dr. Babak Moradi has accumulated over 15 years of reservoir and petroleum engineering experience. Babak started in 2006 as reservoir engineering in Iranian Central Oil Company (ICOFC) in Iran where he worked on 10 onshore fields. He joined to TENCO (E&P company) in 2016 to Manage a team of over 30 engineers and geoscientists to assess the FDP of two non-operated offshore HPHT carbonate gas fields and two giant onshore operated carbonate oil fields in the Middle East. He went to Malaysia on 2019 and started working for PETRONAS as senior reservoir engineer to Lead a team of engineers and geoscientists to appraise & develop four sandstone offshore non-operated and operated oil fields. IOR/EOR optimization in a giant offshore sandstone operated field and production data analysis in an offshore sandstone field. Currently he is working with PETROXIN Ltd in London as consultant reservoir engineer to perform reservoir simulation and prepared the appraisal and production well targets and depletion plan including bottlenecking and network analysis, Water flood optimization to achieve the maximum recovery of economic hydrocarbons and minimize the greenhouse gas emissions in the North Sea.

ADVANCED EXPLORATION VALUATION AND DECISION ANALYSIS (ECO 704)

The aim of this course is to provide the skills needed to analyze and evaluate exploration decisions. Finding hydrocarbon resources is an uncertain business. While historically most wildcat wells became dry holes, some successful wells have also led to business success. Then, what is a good exploration opportunity?

DESIGNED FOR

This course is suitable to a wide range of professionals including:

- Technical staff interested in decision-making side of exploration
- Commercial staff interested in gaining in-depth knowledge of valuation & analysis
- Managers involved in exploration decisions
- Researchers & practitioners who aim to broaden their knowledge of exploration valuation

COURSE LEVEL

- Advanced

LEARNING OBJECTIVES

The learning objectives of the top-most level content of the course are:

- Increase the general understanding of investments in an uncertain environment
- Raise awareness about sources of uncertainty in exploration, both subsurface and commercial
- Opens the door to more informed exploration decisions

REGISTRATION

Registration is now OPEN!

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	1 - 5 Jun	2490 €
London	18 - 22 May	4990 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

In this online course, we will cover the art and science of making hydrocarbon exploration and development decisions. Our goal is to familiarize the participants with an understanding of decisions, their relevant uncertain factors, and show them a consistent valuation of exploration opportunities. This course holds five modules (over five days), twenty hours in total.

COURSE OUTLINE

Day 1:

- Understanding key decisions
- The value chain for upstream hydrocarbon industry
- Economic decision analysis, why we make decisions based on expected values?
- Key aspects of petroleum exploration decisions

Day 2:

- Risk vs. uncertainty; a discussion about subsurface and oil market
- Discounting for time & risk
- Corporate finance & commodity markets
- Practical aspects of exploration decisions
- Case study: Exploration in a mature area

Day 3:

- Decision Trees; how to model exploration opportunities
- Conditional probabilities & value of information
- Case study: Valuation challenges of Frontier Exploration

Day 4:

- Probabilities to encode uncertainty
- Bayesian approach to assessment of conditional probabilities
- Value of information in exploration decisions
- Case study: The decision to drill an appraisal well

Day 5:

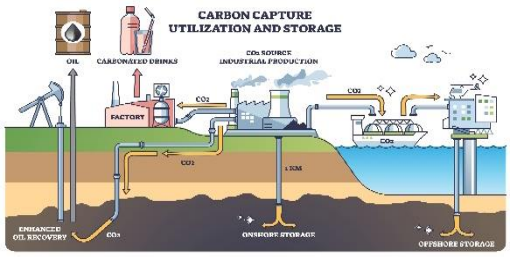
- Value of flexibility, real options, & value of information
- Environmental considerations in hydrocarbon exploration
- Emission tax, emission markets & emerging trends
- Case study: Multi-prospect & sequential exploration
- Case study: Waiting option within an exploration license

INSTRUCTOR

Dr. Babak Jafarizadeh is an engineering economist. He thinks engineering is about economic solutions to the technical challenges of an uncertain world. He has worked as a senior analyst at Equinor, supporting investment decisions for multi-million-dollar projects across the globe. He is also an industry expert, a faculty member of petroleum engineering at Heriot-Watt University, and a lecturer at the University of California, Berkeley. He teaches and conducts research on the art and science of economic decision analysis.

Babak's interests are at the intersection of decision analysis and corporate finance, with applications in engineering and industry. He is the author of the book "Economic Decision Analysis". He holds a PhD in Investment and Decisions Analysis (University of Stavanger, Norway) as well as MSc and BSc degrees in industrial engineering.

CARBON CAPTURE, UTILIZATION, AND STORAGE (CCS 800)



This course provides participants with a comprehensive knowledge of and their application in CCUS. The course is field study based. It presents introduction, economics, site selection, risk and design of measurement, monitoring and verification (MMV). Participants will learn how to objectively evaluate CCUS projects both outside of simulation modeling and using simulation modeling that has been done to the feasibility phase of CCUS projects.

DESIGNED FOR

The course is designed for geologists with little knowledge and experience in the study of CCUS. The objective of the course is to establish a foundation so that participants are able to understand, risk evaluation, reservoir characteristics and monitoring, measurement and verification.

COURSE LEVEL

- Intermediate to Advance

LEARNING OBJECTIVES

Attendees will understand the components based on economics, Risk and MMV to optimize CCS projects and develop timelines and identify key milestones (along with KPI's) of potential projects. By including Risk and MMV Participants will have a strong understanding for evaluating Depleted Gas Reservoirs (DGR) and Saline Aquifers (SA) as well as an understanding of CCS for both Sandstones and Carbonates. The emphasis of the course is actual "Field Case" based and provides a practical knowledge and examples order to economically optimize CCS projects.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	20 - 23 Apr	1990 €
Online	6 - 9 Jul	1990 €
Stavanger	16 - 19 Mar	4370 €
Dubai	2 - 5 Nov	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

The This is a four-day course designed to provide participants with a complete understanding of Carbon Capture Utilization and Storage of Saline and Depleted Gas Reservoirs. The course is field study case-based course and contains real world analogies and examples. The first day of the course entails: workflow, economics, CO2 properties, CO2 Trapping mechanisms, capacity, storage efficiency and injectivity. In the second day, we explore injectivity, plume migration, risk analysis, the impact of fractures, faults, legacy wellbores and Geomechanics and trade-offs in MMV vs. costs. In the third day, we discuss reservoir characterization, simulation, well design and specific monitoring techniques, In the fourth day, we integrate both risk and MMV as well as economics and we cover a variety of filed cases for MMV.

COURSE OUTLINE

Day 1:

- Course overview
- Outline for Risk MMV Surveillance
- Cost, Cost drivers, practical economics
- What are these CCS/CCUS Saline (SA) vs. Depleted Gas Reservoirs
- General Workflow Storage Efficiency, displacement efficiency, CO2 properties, CO2 trapping, Trapping mechanisms, injectivity and introduction to Subsurface Risk

Day 2:

- Volumetric, Plume migration
- Injectivity
- Risk Assessment, difference between Saline Aquifer and Depleted Reservoirs?
- Field Case Quest Project: Uncertainty in Volumetrics
- Assessment of trap
- Analogy: learning from field cases
- Fractures, Faults and Geomechanics in CCS projects
- Trade-offs in MMV vs. cost
- CO2-to-Fuels & Organic Chemicals

Day 3:

- Injection induced fractures
- Above zone monitoring
- Monitoring plume migration & geometry history match
- How does water salinity affect on CCS
- Monitoring for feature events and processes (FEP)
- Surveillance tools and monitoring techniques (MMV)
- Approaches to mitigate, remediate, control migration
- How does the risk assessment change with time
- Long ranges forecasts

Day 4:

- Building a risk evaluation model
- Workflow for depleted oil and gas
- Class problem, dry gas reservoir, CCS
- Depleted gas reservoir
- Field cases
- International field cases in CCUS: Sacroc, Cran field, Sleipner, Snovit, Aquistore

INSTRUCTOR

Richard Baker is a project manager with over 38 years of practical experience in reservoir engineering, simulation, EOR and thermal projects. His work along with other members contribution's has resulted in production increase of 150 Mstbo/d and added 100's MMbbl reserves. He has worked on a number of reservoir characterization / reservoir simulation projects worldwide in 53 countries in both onshore and offshore environments. Richard has held senior reservoir engineering positions at both Shell and Husky Oil and holds both 2 Bachelor's degrees and a Masters degree in Petroleum Engineering from the University of Calgary. He has written a book called "Practical Reservoir Engineering and Characterization" (Elsevier 2015). Richard is a Distinguished Author Member of the Petroleum Society of CIM and received an SPE award in 2007 and a CIM service award in 2008. He has twice won SPE Reservoir Characterization award for Canada and nominated for World Reservoir Characterization award. He has won 2018 SPE Mentoring Award for Canada.

RESERVOIR ENGINEERING ASPECTS OF CO2 EOR AND STORAGE (CCS 801)

CO2 capture, utilization for EOR and storage (CCUS) has significant environmental and economic benefits. A grand sustainability challenge of the E&P industry is to find a plausible solution to CO2 emission. On the other hand, CO2 EOR provides an attractive economic package to achieve the global CO2 emission target. PetroTeach offers three days course in CO2 EOR and Storage to address the important issues.

DESIGNED FOR

The course is designed for Petroleum Engineers with basic knowledge and experience in fluid flow in the porous media, PVT, and basic reservoir engineering mainly on the gas injection.

COURSE LEVEL

- Basic to Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Overview of gas EOR.
- Technical and economic screening process.
- Gas injection design.
- CO2 flooding.
- CCUS, challenges and opportunities.
- Field case studies.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 8 May	1740 €
Online	19 - 21 Oct	1740 €
Accra	8 - 10 Apr	3740 €
Stavanger	23 - 25 Sep	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

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COURSE OVERVIEW

Supercritical CO2 has superior mobility and miscibility properties compared to other EOR gases. In addition, CCS is considered a practical technique to reduce global CO2 emission, provide a gradual transition from fossil energy to green energy and mitigate climate change. This course is designed to provide fundamental understanding of CO2 EOR and CCUS, a state-of-the art review of these topics and identify current and future opportunities and challenges. Participants will be equipped with relevant knowledge and skills to tackle challenges related to CO2 injection and take advantage of opportunities in this area.

COURSE OUTLINE

Day 1: Introduction

- Overview of gas flooding
- Gas flood design
- Technical and economic screening
- Gas injection design
- Fundamentals of CO2 flooding

Day 2: Gas Condensate Reservoirs

- CO2 flood design
- CO2 foam flooding
- Field case studies
- CO2 injection challenges

Day 3: Miscible Process

- CCUS, state of the art review
- CO2 storage in saline formations
- CO2 storage in depleted oil and gas reservoirs
- Storing more CO2 through CO2 EOR
- Current challenges of CCUS
- Future opportunities of CCUS

INSTRUCTOR

Dr. Yen Adams Sokama-Neuyam is a lecturer in the Department of Petroleum Engineering, Kwame Nkrumah University of Science and Technology (KNUST), Ghana. He has about 10 year's research experience from the University of Stavanger, Norway, where he has worked as an Assistant Professor and Research Fellow. He has worked with international companies such as NORCE, Equinor and PGNiG Upstream in major research projects. He is an expert in Well Deliverability, Formation Damage, Flow Assurance, IOR and CCS. Dr. Yen holds a Ph.D. and MSc. degrees in Petroleum Engineering from the University of Stavanger and a BSc. Degree in Petroleum Engineering from KNUST.

HYDROGEN CARBON CAPTURE AND STORAGE (CCS 802)

As we move towards zero-carbon, deep electrification combined with new applications for hydrogen promise to transform the way we live, work, and do business. The energy transition will likely revolutionise the way we think about energy, heating, steel making, transport and energy storage; creating new infrastructure and matching supply chains where huge opportunities await.

DESIGNED FOR

The course is designed for:

- o oil and gas, steel, construction and shipbuilding oil and gas supply chain and those looking to future-proof their capabilities.
- o The CCS clusters, well-placed to drive the regional industries forward, often including a significant hydrogen component.
- o Those with steel making, shipping, construction and automotive interests

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- To describe CCS, the role it is and could be playing in the energy transition.
- To illustrate how it could be an Achilles' heel

REGISTRATION

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	6 - 7 May	1070 €
Stavanger	24 - 25 Sep	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

Carbon capture and storage is seen by many as a necessary transition technology whilst the world builds out the renewable energy system. And this is not limited to power generation. Today more than 95% of the world's hydrogen is made from fossil fuels (coal and natural gas), so CCS can play a significant role in reducing the CO2 emissions related to this production. And the hydrogen sector is expected to grow exponentially across the globe in the coming years. For example, the UK recently set a target to produce five gigawatts of hydrogen by 2030, representing a 40-fold increase from the current situation. This ambition is replicated worldwide where national hydrogen strategies, often explicitly citing the need for decarbonizing industrial sectors such as construction, steel and cement, have appeared regularly over the past year. The journey to a new, low emission energy system will be challenging and requires much innovation: momentum towards NetZero continues to build which calls for many industrial sectors to find ways of decarbonizing their operations.

COURSE OUTLINE

Day 1:

- Introduction
- What is CCS
- A brief history of CCS
- CCS technologies
- CCS business models
- Policy & regulatory perspectives
- Key stakeholder perspectives
- Hydrogen and CCS
- 10 points to consider when investigating Hydrogen and CCS projects
- Summary, wrap up and final questions

Day 2:

- CCS Projects

INSTRUCTORS

Charley Rattan is an international hydrogen expert and respected energy insider and facilitator bringing over 25 years' real-world renewable experience and a track record of successful major project delivery. Charley is a trusted strategic advisor to global energy companies and an advocate and facilitator for the emerging innovation energy market. Charley is a leading authority in hydrogen and renewables providing consultancy and training at high level across the globe including for key stakeholders, governments, consenting authorities and world organizations such as the United Nations.

Tim Podesta is a subject matter expert and active advisor in project management and investment analysis, front end planning/project shaping and benchmarking/assurance; and has deep experience of the oil, gas, petrochemical and energy industries.

Tim has a strong track record of delivering cross cultural programs in strategy, change management and process improvement and is passionate about professional development; learning and sharing learning with a focus on the net zero agenda and the potential for a hydrogen economy alongside clean electricity.

OFFSHORE WINDAND HYDROGEN (REN 803)

As we move towards a zero-carbon future, new synergies around offshore wind and hydrogen promise to transform the energy sector. Combining these technologies can revolutionise the way we think about extracting energy; transport and energy storage - creating a new economic infrastructure and supply chain where huge opportunities await.

DESIGNED FOR

Stakeholders, business and those looking to understand the essentials along with the opportunities offered by the market.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Global offshore wind - what comes next?
- Challenges and opportunities - 'Air to Gas' the integration of offshore wind and hydrogen
- The coming hydrogen economy: What is it? How will it be implemented?
- Supply chain - electrolysers, other equipment and services needed, where and when?
- The rise of the offshore megaproject
- Route to market - who to talk to, how to do business, engaging with the industry
- Overcoming the hurdles to market entry
- National and global opportunities
- Innovation
- Next steps

REGISTRATION

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2026 Schedule and Tuition

Online	3 - 5 Jun	1740 €
Stavanger	7 - 9 Oct	3740 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

A three day long course led by an industry expert exploring the challenges and opportunities for stakeholders and those interested in entering the emerging supply chain - the potential rewards are huge, do not miss out.

COURSE OUTLINE

Day 1:

Setting the scene

- Where are we now with floating offshore wind?
- 20 years of learnings - a UK success story
- World Bank EIC and financial global floating wind trajectories

Enter floating wind

- The remote nature of floating sites and the implications
- The economics of floating wind
- Business cases for integrating hydrogen
- Oil and gas to offshore wind, challenges, and synergies
- Offshore wind and hydrogen current and future leasing

Day 2:

- How? What? Where? When? Hywind
- Westkueste and the JV approach to de-risking innovative and complex projects
- SHYP and PosHYdon Innovation using seawater
- CrossWind Shell et al floating solar integration
- DolpHYn - case study, a deep dive end to end floating technologies
- Clusters Scaling Up Floating Wind and Hydrogen
- Celtic Sea Cluster - Floating Wind for Cornwall and South Wales
- Orkney - Flotta oil terminal
- Pathways and scenarios for floating wind and hydrogen
- Implementation and construction of floating wind projects
- Operations and maintenance strategies for floating wind

Day 3:

Commercial Realities

- Floating offshore wind, hydrogen, and in combination
- KPIS and hurdles
- Contingency
- Project governance
- Lessons learned
- Through blue to green?
- Floating Wind & Hydrogen - to the customer
- Ammonia
- LOHC
- Methanol
- LNG learnings

INSTRUCTOR

Charley Rattan is an international hydrogen expert and respected energy insider and facilitator bringing over 25 years' real-world renewable experience and a track record of successful major project delivery. Charley is a trusted strategic advisor to global energy companies and an advocate and facilitator for the emerging innovation energy market. Charley is a leading authority in hydrogen and renewables providing consultancy and training at high level across the globe including for key stakeholders, governments, consenting authorities and world organizations such as the United Nations.

GREEN AMMONIA (REN 804)

Ammonia is an integral and crucial part of the emerging hydrogen economy, an industry that is expected to grow exponentially across the globe in the coming years. For example, the UK recently set a target to produce five gigawatts of hydrogen by 2030, representing a 40-fold increase from the current situation. This ambition is replicated worldwide where national hydrogen strategies, often explicitly citing the need for ammonia, are appearing on a weekly basis.

DESIGNED FOR

The course is designed for:

- Existing energy companies
- The agricultural sector
- Particularly relevant to engineering companies
- Those companies seeking to enter the ammonia and energy arena

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Will it be green or blue hydrogen or both?
- The Current & future ammonia supply chain
- Zero-carbon bunker fuel opportunities
- Ammonia's potential Long-term storage
- Plants and schemes under development
- The operations and maintenance, employment opportunities Engaging with the ammonia, hydrogen, and renewable industries
- Importance of EU directive
- National nuances and their relevance for attendees
- The importance of stakeholder NGO's and local community engagement
- Investor requirements & expectations

REGISTRATION

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2026 Schedule and Tuition

Online	14 - 17 Sep	1990 €
Oslo	17 - 20 Nov	4370 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The journey to a new, low emission energy system with a much greater role for hydrogen will be challenging and require much innovation. Early engagement with those developing low or zero-emissions ammonia projects will enable fast movers to reap the maximum from the opportunity presented. The course aims to provide a practical guide to enable companies to make informed decisions and plans based on the real opportunities that are emerging as the global hydrogen and ammonia economy develops. Delegates will be guided as to where early opportunities are most likely to lie, who is involved and how to get in front of them.

COURSE OUTLINE

Day 1:

Policy and regulatory perspectives

- United Nations perspective
- EU directive
- National nuances
- International & State ammonia producers: SAFCO, QAFCO, ASEAN Bintulu, Indonesia, China
- Ammonia and Net zero target setting
- Ammonia production technology
- Electrolysis of water
- Methane pyrolysis
- Green or blue hydrogen, advantages & disadvantages
- Ammonia applications

Day 2:

Green ammonia projects

- Demonstration plants
- New applications - research projects/project pipeline /future outlook
- Operations and maintenance, employment opportunities

Potential role(s) of ammonia in decarbonising the energy system

- Ammonia as a carrier to transport hydrogen
- Zero-carbon marine (bunker) fuel
- Long term storage of renewable energy

Day 3:

Green ammonia projects - supply chain considerations

- Ammonia production
- The extended hydrogen supply chain e.g., offshore, offshore floating wind, mega scale solar, electrolysers
- Route to market - national and global opportunities for ammonia and hydrogen
- Engaging with the ammonia, hydrogen and renewables industries

Day 4:

Investor requirements

- Ammonia production
- The extended hydrogen supply chain e.g., offshore, offshore floating wind, mega scale solar, electrolysers
- Route to market - national and global opportunities for ammonia and hydrogen
- Engaging with the ammonia, hydrogen and renewables industries

INSTRUCTOR

Charley Rattan is an international hydrogen expert and respected energy insider and facilitator bringing over 25 years' real-world renewable experience and a track record of successful major project delivery. Charley is a trusted strategic advisor to global energy companies and an advocate and facilitator for the emerging innovation energy market. Charley is a leading authority in hydrogen and renewables providing consultancy and training at high level across the globe including for key stakeholders, governments, consenting authorities and world organizations such as the United Nations.

HYDROGEN INVESTMENT ANALYSIS (REN 805)

You will leave with a clearly explained, business-focused perspective on clean hydrogen investment opportunities. Over three information-packed sessions, this course will provide attendees with a solid grounding in preparing and presenting an investment case for hydrogen taking account of the key technology, business, and organizational issues.

DESIGNED FOR

This course is intended for those seeking a time-effective, wide-ranging & independent perspective on the investment case for opportunities within the rapidly growing market for clean hydrogen.

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The participants will learn:

- Gain a clearer value based understanding of clean hydrogen market opportunities
- Clear explanations of economic value, metrics and investment analysis (in language accessible to technical and business people)
- Discover the key project shaping and assessment issues for hydrogen projects
- Understand the key variables and assumptions that impact the investment case for hydrogen (illustrated using a basic investment model in Excel)
- Takeaway a raised understanding of your investment case with the capability of developing further for your specific context.

REGISTRATION

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For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	23 - 24 Jul	1070 €
Oslo	20 - 21 Aug	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

The fundamentals of investment analysis will be explained and will be illustrated using practical stories and a basic economic evaluation model. The market opportunities and differing approaches and challenges to delivering hydrogen projects will be discussed with reference to project examples and hands on examination using a basic investment model.

COURSE OUTLINE

Day 1:

Investment case shaping (technical, business, political & organizational)

- Technical context
  - Technology risk in clean hydrogen processes
  - Comparing the 'deliverability' of competing clean hydrogen solutions, in particular 'green' vs. 'blue
- Commercial context
  - Competition and Collaboration - Stakeholders - from Partners to Investors
  - Co-ordination - Supply chain - End-to-end value chain considerations, including options for transporting hydrogen
- Political context
  - Government policy and regulatory provisions
  - Market Creation - Price certainty - contract for differences (CfD) ; temporary adjustment payment (TAP)
- Organizational context
  - Strategic alignment
  - Project governance process and front end planning

Fundamentals of Investment Analysis - (choosing the right Investment Case)

- Understanding economic analysis
  - Introduction to the key economic indicators NPV, IRR, Payback and Capital Efficiency

Day 2:

Fundamentals of Investment Analysis - (choosing the right Investment Case)

- Focusing on the assumptions
  - Using a 'score' model for assumptions - an approach based on the presenters subject matter expertise of preparing and presenting investment cases
- Other considerations
  - Assessing less tangible and intangible benefits
  - Sensitivity and scenario analysis, and identifying the competitive advantage

Practical Examples- (preparing and presenting the Investment Case)

- Creating an investment model
  - Step by step creation of a basic investment model for a clean hydrogen project
- Preparing the investment analysis
- Presenting the investment case

INSTRUCTOR

Tim Podesta is a subject matter expert and active advisor in project management and investment analysis, front end planning/project shaping and benchmarking/assurance; and has deep experience of the oil, gas, petrochemical and energy industries.

Tim has a strong track record of delivering cross cultural programs in strategy, change management and process improvement and is passionate about professional development; learning and sharing learning with a focus on the net zero agenda and the potential for a hydrogen economy alongside clean electricity.

PROJECT DEVELOPMENT BEST PRACTICES FOR H2 GENERIC (REN 806)

The purpose of the course is to raise participants awareness of project best practices which can add confidence that the right project is being developed; and that in project shaping and front-end planning prior to the Final Investment Decision (FID), the project will be done right and have the greatest chance of success in terms of cost, schedule, operability, and benefits.

DESIGNED FOR

This course is suitable to a wide range of professionals including:

- Technical staff interested in decision-making side of exploration
- Commercial staff interested in gaining in-depth knowledge of valuation & analysis
- Researchers & practitioners

COURSE LEVEL

- Intermediate

LEARNING OBJECTIVES

The learning objectives of the course are to:

- Gain a clearer understanding of project best practices and application to hydrogen market opportunities
- Clear explanations of project best practices for shaping, development planning and execution (in language accessible to technical and business people)
- Discover the key project shaping and development issues for hydrogen projects
- Takeaway a raised understanding of project best practices with the capability of developing further for your specific context.

REGISTRATION

Registration is now OPEN!

Ph.D. students, group and early bird registrants are eligible to **DISCOUNT!**

For more details and registration please send email to: **register@petro-teach.com**

2026 Schedule and Tuition

Online	3 - 4 Dec	1070 €
Stavanger	3 - 4 Sep	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

COURSE OVERVIEW

You will leave with a clearly explained, business-focused perspective on clean hydrogen project best practices. Over three information-packed sessions, this online course will provide attendees with a solid grounding in utilizing project best practices for hydrogen. The project best practices will be explained and will be illustrated using practical examples The session will cover the following aspects:

1. Project Shaping - choosing the right project
2. Project Front End Planning - setting up the project to be done right
3. Hydrogen Project characteristics - covering Technology development, Supply Chain including Infrastructure and Commercial Offtakes, Political Support, and Financing
4. Hydrogen Project Examples - covering an Industrial Cluster/Valley, Refining, Petrochemicals/Ammonia, and Steel

COURSE OUTLINE

Day 1:

Project Shaping (choosing the right project)

- What does good project shaping look like - understanding the context
- The importance and delivery of good stakeholder alignment
- Establishing good project governance

Project Front End Planning (setting up the project to be done right)

- What are the key elements of good front end planning (reference the CII Project Definition Rating Index - PDRI)
- Assuring project cost, schedule, operability outcomes and benefits

Hydrogen Project characteristics - (the impact of Project Development Best Practices)

- Piloting technology development and scaling up
- Applying 'Agile' project practices as part of traditional 'waterfall' projects

Day 2:

- Local government permitting and as investment partners
- Regional/National regulation for creating and sustaining markets.
- Financing
- Learning from historical gas business development parallels
- Leveraging green investment opportunities
- Hydrogen Project Examples - (using specific examples from around Europe)
- Industrial Cluster/Valley
- Primer/initial investments as part of an overall programme
- The major strategic investment
- Linking to key public facing investments such as transportation
- Other focused examples
- Refining

INSTRUCTOR

Tim Podesta is a subject matter expert and active advisor in project management and investment analysis, front end planning/project shaping and benchmarking/assurance; and has deep experience of the oil, gas, petrochemical and energy industries.

Tim has a strong track record of delivering cross cultural programs in strategy, change management and process improvement and is passionate about professional development; learning and sharing learning with a focus on the net zero agenda and the potential for a hydrogen economy alongside clean electricity.

VALUATION AND FINANCING OF RENEWABLE ENERGY PROJECTS (REN 807)

DESIGNED FOR

The course is designed for finance and investment professionals involved in project finance. And infrastructure investment, renewable energy developers and project managers, engineers and technical professionals., policy analysts and regulators and consultants and advisors working in energy, infrastructure or sustainability related fields.

COURSE LEVEL

- Basic, intermediate or advanced

LEARNING OBJECTIVES

The learning objectives of the top-most level content of the course are:

- Evaluate renewable energy projects
- Apply valuation techniques on renewable energy projects
- Analyse the impact of policy, regulation and market mechanisms
- Design project finance structures
- Incorporate uncertainty and risk

COURSE OVERVIEW

The aim of this course is to provide participants with a comprehensive understanding of how renewable energy investments are evaluated, structured, and financed in practice. It combines financial theory with real-world application, focusing on the unique characteristics, risks, and policy environments of renewable energy projects.

COURSE OUTLINE

Day 1:

- Foundations of Renewable Energy Markets
- Introduction
- Valuation Frameworks
- Cost of Capital
- Policy and Regulatory Environment

Day 2:

- Financing, Risk and Advanced Analysis
- Power Purchase Agreements
- Project Finance Structures
- Risk Analysis and Uncertainty
- Real Options and Strategic Flexibility
- Practical Case Studies
- MCQ Quiz

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2026 Schedule and Tuition

Online	11 - 12 May	1070 €
Stavanger	14 - 15 Sep	2490 €

Prices include course materials and exclude of VAT.

PETROTEACH

www.petro-teach.com

INSTRUCTOR

Angus McPhail has a career background in the City of London as an analyst (Sellside and Buyside) at ING N.V, Investec Plc, Alliance Trust Plc, and Standard & Poor's. Angus is a Teaching Fellow and Lecturer in Finance at University of Stirling and is completing a PhD in Economics and Business Administration at LUT in Finland where his topic is renewable energy and decision analysis. At Stirling he won the Teacher of the Year award (by students) for the Business School in 2025 and was a runner up in 2024. He has a first degree in Economics and Business and two Masters degree's in Investment Analysis (Stirling) and Energy Economics and Policy (Surrey). He supervises postgraduate students at the University of Glasgow and as an external examiner for Liverpool Business School. He has previously taught professional courses in Energy Economics in Central Asia and the Middle East.