Datastat Research
Building Capacity in Training and Research

DATASTAT TRAINING IN

OFFICIAL COURSE PROSPECTUS

Center for Advanced Research & Professional Development

Nairobi Training Center • Global Virtual Academy • Corporate On-Site

OIL AND GAS

Advanced Field Development Decision Analysis Training Course

Comprehensive Course Syllabus, Practical Modules & Upcoming Schedules

PROGRAM SPECIFICATIONS & HIGHLIGHTS

DURATION
5 Days Practical Hands-on

DELIVERY MODES
In-Person Class & Live Virtual

CERTIFICATION
Accredited Certificate of Completion

INTAKES / DATES
Multiple Cohort Schedules Included

PREPARED FOR:

Valued Participant

Email: training@datastatresearch.org | Issued: November 21, 2026

Academic & Professional Training Year: 2026

DATASTAT TRAINING INSTITUTE

P.O. Box 102802-00101, Nairobi, Kenya

Training Centers: Nairobi • Mombasa • Kigali • Dubai • Live Virtual Academy

Tel: +254 724 527 104 | +254 734 969 612

Email: training@datastatresearch.org

www.datastatresearch.org

Advanced Field Development Decision Analysis Training Course

Oil and Gas • 5 Days Intensive • Accredited Certification

Course Overview

Advanced Field Development Decision Analysis Training Course provides an advanced framework for making robust, value-driven decisions across the full oil and gas field development lifecycle.

Key Skills & Software Tools Covered

Field Development Planning • Decision Analysis • Reservoir Optimization • Economic Risk Assessment

Upcoming Training Schedules

Confirmed cohort intakes and venues. Both physical in-person classroom and live virtual online seats are available.

TRAINING DATES	LOCATION / VENUE	FORMAT / DURATION	INVESTMENT (FEE)
12 Oct 2026 – 16 Oct 2026	Nairobi	Classroom / 5d	$1,500 USD / KES 110,000
12 Oct 2026 – 16 Oct 2026	Kigali	Classroom / 5d	$3,000 USD / KES 110,000
12 Oct 2026 – 16 Oct 2026	Dubai	Classroom / 5d	$5,000 USD / KES 110,000
12 Oct 2026 – 16 Oct 2026	Cape Town	Classroom / 5d	$4,500 USD / KES 110,000
12 Oct 2026 – 16 Oct 2026	Addis Ababa	Classroom / 5d	$3,000 USD / KES 110,000
12 Oct 2026 – 16 Oct 2026	Singapore	Classroom / 5d	$5,000 USD / KES 110,000
12 Oct 2026 – 16 Oct 2026	Istanbul	Classroom / 5d	$5,000 USD / KES 110,000
12 Oct 2026 – 16 Oct 2026	Bangkok	Classroom / 5d	$5,000 USD / KES 110,000
12 Oct 2026 – 16 Oct 2026	Accra	Classroom / 5d	$4,000 USD / KES 110,000
19 Oct 2026 – 23 Oct 2026	Nairobi	Classroom / 5d	$1,500 USD / KES 110,000
19 Oct 2026 – 23 Oct 2026	Kigali	Classroom / 5d	$3,000 USD / KES 110,000
19 Oct 2026 – 23 Oct 2026	Dubai	Classroom / 5d	$5,000 USD / KES 110,000

* Corporate discounts and customized cohort scheduling are available for teams of 3 or more participants.

Course Curriculum & Modules

Advanced Field Development Decision Analysis Training Course

Introduction

Advanced Field Development Decision Analysis Training Course provides an advanced framework for making robust, value-driven decisions across the full oil and gas field development lifecycle. The course focuses on field development planning, decision analysis, reservoir uncertainty, production forecasting, economic evaluation, risk management, probabilistic modelling, scenario analysis, and integrated asset development. Participants will learn how to evaluate complex development alternatives and make technically defensible decisions under uncertainty using decision trees, Monte Carlo simulation, sensitivity analysis, real options, probabilistic economics, and value-of-information analysis. The programme integrates subsurface, drilling, facilities, production, economics, and commercial considerations to support optimized field development strategies.

Through practical exercises and industry-based case studies, participants will examine how advanced decision-analysis techniques can improve field development concepts, reserves recovery, capital allocation, production performance, project economics, and portfolio value. Particular emphasis is placed on managing uncertainty in reservoir characterization, well performance, recovery factors, development schedules, oil and gas prices, operating costs, technology selection, and project execution. By completing the course, professionals will be better equipped to translate complex technical data into actionable investment decisions, optimize development portfolios, quantify risk-adjusted value, and build resilient field development plans aligned with energy transition, digital oilfield, decarbonization, and long-term asset value objectives.

Course Duration

5 days

Course Objectives

By the end of this course, participants will be able to:

- Apply advanced decision analysis frameworks to complex field development decisions.
- Evaluate field development scenarios under technical, economic, and operational uncertainty.
- Use probabilistic modelling and Monte Carlo simulation to quantify project risks.
- Develop robust reservoir development and production strategies using integrated datasets.
- Apply NPV, IRR, EMV, risk-adjusted value, and economic optimization techniques.
- Conduct sensitivity and uncertainty analysis for key field development variables.
- Evaluate well placement, drilling, facilities, and production optimization alternatives.
- Apply decision trees and influence diagrams to complex development decisions.
- Assess Value of Information (VoI) and determine when additional data collection is economically justified.
- Integrate reservoir, drilling, production, facilities, and economics into development decisions.
- Optimize capital allocation and development sequencing across competing field scenarios.
- Evaluate risk, uncertainty, resilience, and energy-transition considerations in field development.
- Develop and communicate defensible, value-focused field development recommendations to technical and executive stakeholders.

Target Audience

- Reservoir Engineers and Senior Reservoir Engineers
- Petroleum and Production Engineers
- Field Development and Asset Development Engineers
- Geoscientists and Reservoir Characterization Specialists
- Drilling, Completion and Well Intervention Professionals
- Petroleum Economists and Commercial Analysts
- Asset Managers, Field Development Managers and Project Managers
- Energy Executives, Investment Decision-Makers and Technical Consultants

Course Modules

Module 1: Advanced Field Development Decision-Making Framework

- Principles of integrated field development decision analysis
- Decision quality and structured decision-making processes
- Defining objectives, constraints, alternatives and success criteria
- Strategic alignment between technical and commercial objectives
- Case Study: Selecting the optimal development concept for a complex offshore field

Module 2: Uncertainty, Risk and Probabilistic Field Development

- Sources of subsurface, operational and commercial uncertainty
- Deterministic versus probabilistic field development approaches
- Probability distributions and uncertainty ranges
- Risk identification, ranking and mitigation strategies
- Case Study: Managing reservoir uncertainty during development planning

Module 3: Decision Trees, Influence Diagrams and Scenario Analysis

- Building decision trees for complex development alternatives
- Influence diagrams and causal relationships
- Scenario generation and alternative development pathways
- Expected Monetary Value (EMV) and decision criteria
- Case Study: Decision-tree analysis for phased field development

Module 4: Reservoir and Production Development Optimization

- Integrating reservoir models into development decisions
- Well placement, well count and development pattern optimization

- Production forecasting and recovery-factor analysis
- Water injection, gas injection and enhanced recovery alternatives
- Case Study: Optimizing well locations and recovery strategy for a mature field

Module 5: Economic Evaluation and Risk-Adjusted Project Value

- NPV, IRR, payout and discounted cash-flow analysis
- CAPEX, OPEX and production-cost optimization
- Oil and gas price uncertainty and economic scenarios
- Risk-adjusted economics and portfolio value
- Case Study: Economic comparison of competing field development concepts

Module 6: Monte Carlo Simulation and Advanced Sensitivity Analysis

- Building probabilistic economic and production models
- Monte Carlo simulation for field development uncertainty
- Tornado charts, spider plots and sensitivity analysis
- Correlation, dependency and probabilistic forecasting
- Case Study: Monte Carlo assessment of a high-uncertainty development project

Module 7: Value of Information, Real Options and Portfolio Decisions

- Fundamentals of Value of Information (VoI) analysis
- Evaluating appraisal wells and additional data acquisition
- Real options in phased and flexible field development
- Portfolio optimization and capital allocation
- Case Study: Determining whether additional appraisal drilling creates economic value

Module 8: Integrated Development Strategy and Executive Decision Support

- Integrating subsurface, wells, facilities, production and economics
- Development sequencing and investment prioritization
- Digital decision support and advanced analytics
- Sustainability, decarbonization and energy-transition considerations
- Case Study: Building an integrated investment recommendation for a major field development

Training Methodology

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@datastatresearch.org or call +254724527104

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to DATASTAT CONSULTANCY LTD account, as indicated in the invoice so as to enable us prepare better for you

Certification & Learning Methodology

- Hands-on practical delivery with real-world datasets, case studies, and lab exercises.
- Post-training mentorship, access to class resources, and customized follow-up support.
- Participants who successfully complete the course receive an accredited Datastat Certificate of Completion.

How to Enroll & Reserve Your Seat

1. Online Registration: Visit https://datastatresearch.org/courses/advanced-field-development-decision-analysis-training-course to register online.
2. Email Booking: Send participant details to training@datastatresearch.org for official invoice & reservation.
3. Support & Assistance: Inquire via phone +254 724 527 104 | +254 734 969 612.