

Applied Biostratigraphy and Sequence Stratigraphy Training Course

27 June – 1 July 2027
Johannesburg

AGILE LEADERS
Training Center

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Ref: 1937_243827 **Date:** 27 June – 1 July 2027 **Location:** Johannesburg **Fees:** 6000 Euro

Overview

Applied Biostratigraphy and Sequence Stratigraphy Training Course is a one-week advanced course for exploration, development, biostratigraphy, sedimentology, wellsite, and subsurface-integration functions who leave with a Stratigraphic Correlation and Exploration Decision File. Participants connect microfossil and bioevent evidence with chronostratigraphy, paleoenvironment, sequence surfaces, systems tracts, well logs, core, and seismic markers. The course applies data-quality checks, correlation methods, alternative frameworks, and uncertainty records to exploration and development decisions. Agile Leaders Training Center presents integrated applied stratigraphy.

Who Should Attend

- Exploration functions responsible for play, prospect, and correlation evidence
- Development functions responsible for reservoir continuity and field frameworks
- Biostratigraphy functions responsible for fossil events, ages, and environments
- Sedimentology functions responsible for facies and depositional interpretation
- Wellsite functions responsible for sampling and operational stratigraphic decisions
- Technical-review functions responsible for integration and uncertainty

The course assumes participants interpret geological, well, core, log, or seismic evidence, and it leaves out fossil taxonomy specialization, laboratory preparation procedures, seismic processing, and reservoir simulation.

Departments and Industries

The course supports departments and industries that build stratigraphic frameworks for subsurface decisions.

- Oil and gas exploration, appraisal, and development
- Geothermal and subsurface-storage projects
- Geological and geophysical consulting
- Biostratigraphy, sedimentology, and reservoir geology
- Subsurface integration and technical assurance

Learning Objectives

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

- Evaluate sample and biostratigraphic data quality
- Analyze bioevents, biozones, ages, and paleoenvironments
- Build chronostratigraphic and sequence frameworks
- Integrate well, core, log, and seismic evidence
- Compare correlation alternatives and uncertainty
- Build an exploration and development decision file

Course Agenda

Day 1: Establish Biostratigraphic Evidence

- Sample Provenance and Data-Quality Checklist
- Microfossil Group and Preservation Screening Matrix
- First and Last Occurrence Bioevent Register
- Reworking, Caving, and Hiatus Diagnostic Guide
- Biostratigraphic Confidence and Uncertainty Scale

Day 2: Interpret Age and Environment

- Biozone Definition and Correlation Panel
- Chronostratigraphic Age-Control Chart
- Biofacies and Paleoenvironment Interpretation Matrix
- Paleobathymetry and Water-Depth Evidence Record
- Well-to-Well Bioevent Correlation Method

Day 3: Build the Sequence Framework

- Accommodation and Sediment-Supply Concept Model
- Sequence Boundary and Unconformity Evidence Map
- Maximum Flooding and Condensed-Section Indicator Set
- Systems Tract and Stacking-Pattern Framework
- Chronostratigraphic Wheeler-Style Correlation Chart

Day 4: Integrate Exploration and Development Evidence

- Well Log, Core, and Bioevent Integration Board
- Seismic Marker and Stratigraphic Surface Tie Sheet
- Reservoir, Source, and Seal Distribution Prediction Map
- Stratigraphic Trap and Play-Element Evaluation Matrix
- Correlation Alternative and Geological-Risk Register

Day 5: Practice Integrated Stratigraphy

- Suggested Exercise: Validate Samples and Rank Bioevents
- Suggested Exercise: Correlate Biozones and Paleoenvironments
- Suggested Exercise: Pick Sequence Surfaces and Systems Tracts
- Suggested Exercise: Challenge Reservoir and Play Predictions
- Capstone Exercise: Complete the Stratigraphic Correlation and Exploration Decision File

Practical Exercises

The course uses suggested activities to convert fossil, well, core, log, and seismic evidence into traceable stratigraphic decisions.

- Suggested activity: distinguish reliable bioevents from caving, reworking, preservation, and sampling effects.
- Suggested activity: construct an age and paleoenvironment correlation across several wells.
- Suggested activity: integrate sequence surfaces, systems tracts, facies, and seismic markers.
- Suggested activity: document correlation alternatives, uncertainty, predictions, and data priorities.

FAQs

Who suits applied biostratigraphy and sequence stratigraphy training, and what does it assume?

Applied biostratigraphy and sequence stratigraphy training suits exploration, development, biostratigraphy, sedimentology, wellsite, and integration functions. It assumes practical use of geological, well, core, log, or seismic evidence.

How does applied biostratigraphy differ from general development geology training?

Applied biostratigraphy concentrates on fossil events, biozones, age, paleoenvironment, and their integration with sequence surfaces. Development geology spans structure, facies, mapping, volumetrics, uncertainty, and field planning.

How do bioevents improve stratigraphic correlation?

Bioevents improve correlation by supplying independent age and environmental markers that can connect intervals where log or seismic patterns are ambiguous, structurally disrupted, or facies dependent.

How does biostratigraphy support sequence stratigraphy?

Biostratigraphy supports sequence stratigraphy through age control, paleoenvironment trends, biofacies changes, event abundance, condensed-section recognition, and correlation of sequence boundaries and flooding surfaces.

How should stratigraphic uncertainty be recorded?

Stratigraphic uncertainty should record sample quality, preservation, reworking, caving, event confidence, age range, facies dependence, alternative correlations, seismic or log ties, and the decisions each uncertainty affects.

Conclusion

Participants take back a Stratigraphic Correlation and Exploration Decision File linking samples, bioevents, ages, environments, sequence surfaces, systems tracts, integrated evidence, alternatives, and uncertainty. It changes disconnected interpretations into one traceable framework. The file supports exploration, appraisal, development, wellsite, and technical-review decisions.