



Advanced Business Analytics and Predictive Modeling Training Course

Advanced Business Analytics and Predictive Modeling Training Course

Overview

Advanced Business Analytics and Predictive Modeling Training Course is a five-day advanced course for data analysts, business intelligence analysts, analytics engineers, business analysts, data scientists, and decision-support professionals who leave with an Advanced Analytics Decision Portfolio. Participants connect analytical problem framing, statistical inference, regression, classification, clustering, time-series forecasting, anomaly detection, optimization, model evaluation, interpretation, and decision recommendations. Agile Leaders Training Center develops practical advanced business analytics capability.

Who Should Attend

- Data analysis functions responsible for investigating patterns and testing business hypotheses
- Business intelligence functions responsible for extending reporting into predictive insight
- Analytics engineering functions responsible for reliable analytical datasets and workflows
- Business analysis functions responsible for framing decisions and interpreting evidence
- Data science functions responsible for model selection, evaluation, and explanation
- Decision-support functions responsible for comparing options and communicating recommendations

The course assumes participants can prepare tabular data, interpret summary statistics, and work with analytical outputs, and leaves out introductory spreadsheet skills, dashboard design, data-pipeline engineering, and certification exam preparation.

Departments and Industries

The course supports departments and industries that use analytical evidence to guide complex decisions.

- Banking risk and customer analytics
- Retail demand and commercial planning
- Healthcare operations analysis
- Manufacturing quality and process improvement
- Telecommunications customer and network insight

Learning Objectives

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



- Analyze business questions through an analytics decision frame
- Apply statistical inference and diagnostic methods
- Build and compare predictive modeling approaches
- Evaluate classification, clustering, and forecasting results
- Use anomaly detection and optimization for decisions
- Build an Advanced Analytics Decision Portfolio

Course Agenda

Day 1: Frame Advanced Analytics Decisions

- Analytics Decision Question Canvas
- Descriptive, Diagnostic, Predictive, and Prescriptive Map
- Analytical Unit and Outcome Definition Sheet
- Data Suitability and Leakage Checklist
- Decision Cost and Success Measure Register

Day 2: Diagnose Patterns and Relationships

- Statistical Distribution and Outlier Profile
- Sampling and Statistical Inference Framework
- Hypothesis Test Selection Matrix
- Correlation and Association Interpretation Guide
- Diagnostic Segmentation Evidence Table

Day 3: Build Predictive Models

- Regression Model Specification Template
- Classification Feature and Outcome Matrix
- Training and Validation Split Protocol
- Model Performance Comparison Scorecard
- Prediction Error and Residual Diagnostic

Day 4: Extend Analytics to Decisions

- Clustering and Segment Interpretation Method
- Time-Series Forecasting Workflow
- Anomaly Detection Threshold Framework
- Prescriptive Optimization Decision Model
- Model Interpretation and Assumption Register



Day 5: Practice Analytics Decision Support

- Exercise: Frame an Analytical Decision Question
- Exercise: Diagnose Patterns and Test Evidence
- Exercise: Compare Predictive Model Performance
- Exercise: Translate Forecasts and Optimization into Options
- Capstone: Advanced Analytics Decision Portfolio

Practical Exercises

The course uses suggested activities based on banking, retail, healthcare, manufacturing, and telecommunications decisions.

- Suggested activity: translate a business concern into an analytical unit, outcome, measure, and decision threshold.
- Suggested activity: investigate distributions, outliers, relationships, hypotheses, and segments without overstating evidence.
- Suggested activity: compare regression and classification models through validation evidence and decision costs.
- Suggested activity: combine forecasts, anomaly signals, optimization choices, assumptions, and recommendations in a decision portfolio.

FAQs

Who suits advanced business analytics and predictive modeling training, and what does it assume?

Data, business intelligence, analytics engineering, business analysis, data science, and decision-support functions suit the training; it assumes experience preparing tabular data and interpreting summary statistics.

How does advanced business analytics differ from introductory data analysis training?

Advanced business analytics evaluates statistical, predictive, and prescriptive methods for complex decisions, while introductory data analysis training focuses on basic preparation, summaries, charts, and straightforward interpretation.

How should analysts choose between regression and classification?

Analysts should choose regression when the outcome is continuous and classification when the outcome is a defined class, then test assumptions, validation evidence, error costs, interpretability, and intended decisions.



What makes predictive modeling evidence reliable?

Reliable predictive modeling evidence depends on suitable data, leakage prevention, representative validation, appropriate metrics, comparison with a baseline, error analysis, stable assumptions, transparent limitations, and decision relevance.

How do prescriptive analytics support business decisions?

Prescriptive analytics compare feasible actions under objectives and constraints, using forecasts, costs, risks, capacity, scenarios, and sensitivity analysis to present decision options rather than automatic certainty.

Conclusion

Participants take back an Advanced Analytics Decision Portfolio linking questions, data suitability, statistical evidence, models, validation, forecasts, anomalies, optimization, assumptions, and recommendations. It changes isolated analytical outputs into traceable decision support. The portfolio helps data, business intelligence, analytics, science, and management functions evaluate options through shared evidence.



Training Course Categories

Agile PM and Project Management Training Courses

Agribusiness & Food Security Training Courses

Certified Courses By International Bodies

Communication and Public Relations Training Courses

Crisis Management and Business Continuity Training Courses

Data Analytics Training and Data Science Courses

Digital Government & Public Service Training Courses

Education and Learning Development Training Courses

Environment & Sustainability Training Courses

Facilities and Real Estate Training Courses

Finance and Accounting Training Courses

Governance, Risk and Compliance Training Courses

Healthcare Management Training Courses

Heritage Conservation and Museum Management Training Courses

Hospitality and Tourism Training Courses

Human Resources Training and Development Courses

IT Security Training & IT Training Courses

Leadership and Management Training Courses

Legal Training, Procurement and Contracting Courses

Maintenance Training and Engineering Training Courses

Marketing, Customer Relations, and Sales Courses

NGO, Humanitarian and Development Management Training Courses

Occupational Health, Safety and Security Training Courses

Oil & Gas Training and Other Technical Courses

Personal & Self-Development Training Courses

Quality and Operations Management Training Courses



Training Course Categories

Secretarial and Administration Training Courses

Shipping, Maritime and Ports Training Courses



Training Cities

Abu Dhabi UAE	Accra Ghana	Amman Jordan
Amsterdam Netherlands	Athens Greece	Baku Azerbaijan
Bali Indonesia	Bangkok Thailand	Barcelona Spain
Berlin Germany	Cairo Egypt	Cape town South Africa
Casablanca Morocco	Chicago USA	Doha Qatar
Dubai UAE	Frankfurt Germany	Geneva Switzerland
Istanbul Turkey	Jakarta Indonesia	Johannesburg South Africa
Kuala Lumpur Malaysia	Kuwait Kuwait	Langkawi Malaysia
Lisbon Portugal	London UK	Madrid Spain
Manama Bahrain	Marbella Spain	Milan Italy
Montreux Switzerland	Munich Germany	Muscat Oman
Nairobi Kenya	New York USA	Nice France

Training Cities

Paris

France

Phuket

Thailand

Port Louis

Mauritius

Porto

Portugal

Prague

Czech Republic

Rome

Italy

San Diego

USA

Seoul

South Korea

Sharm El-Sheikh

Egypt

Singapore

Singapore

Tashkent

Uzbekistan

Tbilisi

Georgia

Tokyo

Japan

Toronto

Canada

Trabzon

Turkey

Vienna

Austria

Zanzibar

Tanzania

Zoom

Online Training

Zurich

Switzerland