Advanced Economic Indicator Calculation and Quality Assurance Training Course

30 May – 3 June 2027
Johannesburg

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Ref: 1160_185702 **Date:** 30 May – 3 June 2027 **Location:** Johannesburg **Fees:** 4500 Euro

Overview

Advanced Economic Indicator Calculation and Quality Assurance Training Course is a one-week practical course for economic analysts, statisticians, planners, policy analysts, researchers, and data teams. Participants build an Economic Indicator Production and Briefing Pack covering conceptual frameworks, source-data assessment, output and income measures, price indices, labour and trade indicators, productivity, seasonal adjustment, composite measures, revisions, metadata, quality assurance, interpretation, and communication. The course turns calculation methods into a controlled production process rather than an introduction to economic theory. Agile Leaders Training Center develops disciplined indicator practice.

Who Should Attend

- Economic analysts responsible for calculating and interpreting macroeconomic indicators
- Statisticians and data teams working with official, sector, or institutional statistics
- Planning and policy professionals who use indicators in monitoring and decisions
- Researchers responsible for time-series preparation, adjustment, and comparative analysis
- Reporting teams that prepare economic releases, dashboards, and executive briefings

Participants should understand basic statistics, percentages, index numbers, and spreadsheet calculations. The course does not provide introductory economics, advanced econometric forecasting, or country-specific regulatory instruction.

Departments and Industries

The course supports organisations that produce, validate, interpret, or communicate economic and sector indicators.

- National statistics, economic affairs, planning, and policy units
- Central banking, finance, investment, and economic research
- Labour, trade, industry, energy, and development agencies
- Universities, think tanks, consultancies, and business intelligence teams
- Corporate strategy, market analysis, risk, and performance functions

Learning Objectives

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

- Define indicator concepts, populations, reference periods, classifications, and units
- Calculate output, income, price, labour, trade, and productivity indicators
- Apply index-number, weighting, contribution, and growth-rate methods
- Prepare seasonal adjustment, revision, and time-series quality controls
- Construct and evaluate composite indicators with documented assumptions
- Produce metadata, quality statements, visualisations, and decision briefings

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Course Agenda

Day 1: Indicator Frameworks and Production Design

- Indicator Purpose, User, and Decision Map
- Concept, Population, Reference Period, and Unit Matrix
- Classification and Source-Data Alignment Grid
- Calculation Specification and Metadata Template
- Indicator Production Workflow and Quality Gates

Day 2: Output, Income, Trade, and Productivity Measures

- Production, Expenditure, and Income Measure Bridge
- Nominal, Volume, Per-Capita, and Growth Calculations
- Trade Balance, Share, and Contribution Measures
- Labour and Multifactor Productivity Framework
- Consistency, Additivity, and Reconciliation Checks

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Day 3: Price and Labour Market Indicators

- Price Basket, Weight, and Reference-Period Design
- Elementary Aggregate and Price Index Calculation
- Linking, Rebasing, Missing Values, and Quality Change
- Employment, Unemployment, and Participation Rate Grid
- Population Denominator and Labour-Status Validation Tests

Day 4: Time-Series Adjustment and Composite Measures

- Seasonality, Calendar Effects, Trend, and Cycle Map
- Outlier Detection and Series Treatment Log
- Component Selection and Normalisation Matrix
- Weighting, Aggregation, and Sensitivity Analysis
- Composite Indicator Performance and Revision Dashboard

Day 5: Quality Assurance and Economic Briefing

- Exercise: Audit an Indicator Calculation Specification
- Exercise: Reconcile Output, Price, and Labour Results
- Exercise: Investigate a Seasonal Revision
- Exercise: Build and Test a Composite Measure
- Capstone Exercise: Economic Indicator Production and Briefing Pack

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Practical Exercises

The course uses suggested activities to connect formulas, source data, quality evidence, and communication.

- Suggested activity: calculate nominal, real, per-capita, and contribution measures from a source table
- Suggested activity: construct a weighted price index and document its reference periods
- Suggested activity: validate employment-status totals and calculate labour-market rates
- Suggested activity: explain indicator revisions and uncertainty in an executive briefing

FAQs

Who suits advanced economic indicator calculation training?

Economic analysts, statisticians, planners, policy analysts, researchers, and reporting teams suit the course. Participants should understand basic statistics, percentages, index numbers, and spreadsheet calculations.

How does this course differ from introductory economics?

The course focuses on indicator specifications, formulas, source data, quality controls, revisions, metadata, and reporting. It does not teach introductory economic models or broad economic history.

Which economic indicators are calculated?

Participants work with output, income, growth, per-capita, price, employment, unemployment, participation, trade, productivity, and composite indicators, using documented definitions and reference periods.

Why do economic indicators get revised?

Indicators may change when late source data arrive, classifications are corrected, seasonal factors are re-estimated, weights are updated, benchmarks change, or compilation errors are resolved. A revision log explains each change.

What makes an economic indicator fit for communication?

A useful release states the concept, coverage, unit, period, method, source, revision status, uncertainty, comparison basis, and interpretation limits, then links charts and commentary to the same figures.

Conclusion

Participants take back an Economic Indicator Production and Briefing Pack containing specifications, calculation sheets, source checks, price and labour templates, reconciliation controls, adjustment and revision logs, a composite-indicator model, metadata, a quality statement, and a briefing. The pack converts separate calculations into a transparent production cycle that supports consistent analysis and responsible communication.