

DATA ANALYSIS FOR INTERNAL AUDITING



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TRAINING CENTER



Introduction

Data Analysis for Internal Auditing Training Course gives internal auditors the practical analytics skills modern assurance demands. Participants work through data sourcing and preparation, audit test design, full-population testing, CAAT tools, exception analysis, continuous auditing, and reporting analytics findings as one connected method. The programme links the audit question an engagement sets with the data test that answers it. As a result, learners gain a repeatable, evidence-based analytics approach. Furthermore, the course strengthens data judgement, test design, and findings quality.

Data Analysis for Internal Auditing Course Objectives

- Explain how data analytics changes audit coverage and evidence.
- Identify audit objectives that analytics can address.
- Apply data extraction, cleansing, and validation techniques.
- Apply joins, matching, and reconciliation for audit tests.
- Apply duplicate, gap, and exception testing routines.
- Apply data profiling, stratification, and trend analysis.
- Apply sampling versus full-population testing decisions.
- Apply computer-assisted audit techniques (CAAT) and audit software.
- Apply continuous auditing and monitoring concepts.
- Document test logic, validate results, and report findings.

Course Methodology

- Interactive sessions built on audit analytics case studies.
- Workshops on test design, data preparation, and results validation.
- Group exercises on duplicate testing, matching, and exception analysis.
- Hands-on practice with audit datasets, test logic sheets, and results logs.

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- Simulation of an analytics-assisted audit engagement and results review.
- Facilitator coaching and peer review on personal analytics audit plans.

Who Should Take This Course

- Internal auditors and audit analytics professionals.
- IT auditors and technology assurance staff.
- Compliance and internal control professionals.
- Data analysts supporting audit and risk functions.
- Finance and operations staff supporting audit testing.
- Consultants advising on audit analytics and CAAT programmes.

Data Analysis for Internal Auditing Course Outlines

Day 1: Analytics in the Audit Process

- How analytics changes audit scope and evidence quality.
- Analytics versus traditional sampling approaches.
- Audit objectives and analytic question framing.
- Types of audit analytics: descriptive, diagnostic, and predictive.
- Data governance, privacy, and ethical use in audit.
- Auditor competencies for analytic work.
- Case discussion: an analytics test that produced unusable results.

Day 2: Data Sourcing, Preparation, and Validation

- Identifying and requesting data from system owners.
- Extract, transform, and load (ETL) basics for audit.



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- Data profiling, completeness, and integrity checks.
- Cleansing, standardisation, and field mapping.
- Reconciliation to financial and operational records.
- Documentation of sources, logic, and limitations.
- Workshop: preparing an audit dataset for testing.

Day 3: Core Audit Testing Techniques

- Duplicate payment and duplicate vendor testing.
- Gap analysis and sequence testing.
- Matching and joining datasets across systems.
- Exception and threshold testing design.
- Stratification, ageing, and trend analysis.
- Access and segregation of duties analytics.
- Exercise: building a duplicate and exception test.

Day 4: CAAT Tools, Sampling, and Continuous Auditing

- Computer-assisted audit techniques (CAAT) and audit software.
- Sampling versus full-population testing decisions.
- Sample selection methods and evaluation of results.
- Data visualisation for audit insight.
- Continuous auditing and continuous monitoring design.
- Automating recurring audit tests and dashboards.
- Simulation: running an analytics test and validating results.

Day 5: Documentation, Findings, and Reporting



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- Documenting test logic, parameters, and reproducibility.
- Validating results and investigating false positives.
- Translating analytics output into audit findings.
- Root cause analysis from data-driven evidence.
- Reporting analytics results to management and committees.
- Follow-up and re-testing automation.
- Capstone: presenting an analytics-assisted audit report.

Conclusion

By successfully completing Data Analysis for Internal Auditing, participants will gain a practical command of audit analytics, data preparation and validation, core testing techniques, CAAT tools, continuous auditing, and analytic findings reporting. They will acquire skills in test design, exception analysis, result validation, and analytics reporting that expand audit coverage and strengthen evidence. Gentex Training Center designs the programme to help auditors apply data analysis with confidence.

FAQs

Q1 What is the "Data Analysis for Internal Auditing" course about?

It gives internal auditors the practical analytics skills modern assurance demands. The course spans analytics in the audit process, data sourcing, preparation and validation, core audit testing techniques, CAAT tools, sampling and continuous auditing, and documentation, findings and reporting.





Q2 What are the key benefits of the "Data Analysis for Internal Auditing" course?

You gain a repeatable, evidence-based analytics approach that links the audit question an engagement sets with the data test that answers it. The course improves test design and data preparation, strengthens exception analysis and result validation, sharpens CAAT and continuous auditing practice, and gives you findings and reporting discipline that expands audit coverage.

Q3 What skills will I gain from the "Data Analysis for Internal Auditing" course?

You will develop four core skills: audit test design with analytic question framing, data sourcing, cleansing and validation for audit, duplicate, gap, matching and exception testing technique, and continuous auditing design with analytics findings reporting.



Q4 What tools, methods, or standards are covered in the "Data Analysis for Internal Auditing" course?

The course covers how analytics changes audit scope and evidence quality, analytics versus traditional sampling, audit objectives and analytic question framing, descriptive, diagnostic and predictive audit analytics, data governance, privacy and ethical use in audit, auditor competencies for analytic work, data identification and requesting from system owners, extract, transform and load (ETL) basics for audit, data profiling, completeness and integrity checks, cleansing, standardisation and field mapping, reconciliation to financial and operational records, documentation of sources, logic and limitations, duplicate payment and duplicate vendor testing, gap analysis and sequence testing, matching and joining datasets across systems, exception and threshold testing design, stratification, ageing and trend analysis, access and segregation of duties analytics, computer-assisted audit techniques (CAAT) and audit software, sampling versus full-population testing decisions, sample selection methods and result evaluation, data visualisation for audit insight, continuous auditing and continuous monitoring design, automation of recurring tests and dashboards, documentation of test logic, parameters and reproducibility, result validation and false positive investigation, translating analytics output into audit findings, root cause analysis from data-driven evidence, reporting analytics results to management and committees, and follow-up and re-testing automation.

Q5 How is the "Data Analysis for Internal Auditing" course applied in real-world practice?

Participants apply it to real work such as preparing an audit dataset from a source system, running a duplicate payment test over the full population, matching procurement and payment data to find exceptions, analysing segregation of duties conflicts, automating a recurring audit test, and drafting an audit finding from analytics output. The same methods support continuous auditing dashboards and re-testing after remediation.