Data Analysis and Data Mining as a Fraud Investigation Tools

The ability to use data mining and computer assisted audit techniques (CAATs) is now considered by the audit profession as a core skill. The IIA’s Global Technology Audit Guide (GTAG) 13: Fraud Prevention and Detection in an Automated World declares, “Internal auditors require appropriate skills and should use available technological skills to help them maintain a successful fraud management program … all audit professionals — not just IT audit specialists — are expected to be increasingly proficient.” This course addresses these requirements.

In this course, we will discuss:

- Myths and realities about using data analytics tools and techniques to detect fraud.
- Benefits of using CAATs to detect and investigate fraud.
- Critical ways CAATs can help to prevent fraud.
- Key fraud detection capabilities of CAATs.
- How to obtain management buy-in to implement CAATs for fraud detection, investigation, and prevention.
Course Duration:
1 Day

CPE Hours Available:
8

Knowledge Level:
Intermediate

Field of Study:
Auditing

Prerequisites:
Participants should have knowledge or experience with basic accounting and audit concepts. Advance

Preparation:
None

Delivery Format:
On-site Training (Group-Live)
Course Outline:

**Audit Evidence**
- Why evidence is important
- Different types of evidence
- Methods to gather evidence
- Best types of evidence
- Determine and review audit evidence that is appropriate, sufficient, and persuasive to support audit conclusions — examples provided

**The Fraud Problem**
- Defining the fraud problem
- A statistical overview of the fraud problem
- Who commits fraud
- The Fraud Triangle (why employees commit fraud)
- Lessons from "successful" fraudsters

**New IIA and ISACA Fraud-detection Standards**
- The IIA’s GTAG 13: Fraud Prevention and Detection in an Automated World and GTAG 16: Data Analysis Technologies
- ISACA’s whitepaper Data Analytics—A Practical Approach
- AuditNet’s Data Analytics for Fraud Among Auditors survey results

**Getting Started With Data Analytics/CAATs**
- Step 1: Conducting the fraud risk assessment
- Step 2: Scoping the use of data analytics based on the fraud risk assessment results
- Step 3: Identifying the data to be mined
- Step 4: Acquiring the data
- Step 5: Physically accessing and importing the data

**Planning the Approach**
- Ad hoc testing
- Repetitive testing
- Continuous auditing
- Continuous monitoring
“How-to” Demos

- Detect duplicate payment fraud
- Detect payroll (“ghost” employee) fraud
- Detect P-card fraud

Other Data Analysis Tests that Can Be Performed to Discover Red Flags of Fraud

- Using data analysis to investigate fraud
- When to investigate and when not to investigate
- Who should investigate
- Data analysis techniques for investigating fraud when red flags have been detected
- Keeping the fraud trail “untainted”