About This Course

Course Description
Auditors face a number of issues and concerns in today’s environment regarding data collection. Knowing which method of sampling is most appropriate for different situations, estimating the sample size needed to provide the desired confidence level, and assigning sample size strategically to get the most information at the lowest cost are critical steps to executing a successful audit.

This course provides an opportunity for you to learn about the pitfalls you face in selecting the most appropriate sampling methods, calculating sample size, and creating an audit design that will provide the most information at the minimum cost. Topics covered include different methods of random sampling and non-random selection, adjusting for population size and resource constraints, how to combine results and extrapolate, and what to report.

This course is appropriate for auditors, managers, and executives working in both the public and private sectors.

Course Objectives
- Summarize introductory terminology and methodology related to sampling.
- Employ random sampling techniques.
- Understand why haphazard sampling should not be used.
- Identify the criteria for non-random selection techniques.
- Apply the binomial equation formula to calculate sample size.
- Employ methods for adjusting sample size.
- Practice combining results, given a scenario.
- Describe elements within the report.
- Balance resources by tracking the various evidence collection methods and tests of controls in the audit program.
Course Topics

*Introduction to Statistics*
- Defining Statistics
- Statistical Techniques
  - Descriptive Statistics
  - Inferential Statistics
- Population
- Random Sample
- Variables
- Random Sample vs. Population Census
- Sampling Method vs. Sample Size

*Random Sampling*
- The Randomness Assumption
- Types of Random Sampling
  - Simple Random Sampling
  - Stratified Random Sampling
  - Dollar Unit Sampling
  - Stop-or-Go Sampling
  - Haphazard Sampling

*Non-Random Selection*
- Defining Non-Random Selection
- Fraud Red Flags
- How to Perform Non-Random Selection
- The Credibility Obstacle
- Case Study Using Non-Random Selection

*Calculating Sample Size*
- Drivers of Sample Size
- Binomial Equation
- Confidence Level
- Expected Error Rate
- Precision
- Pilot Studies

*Adjustments to Sample Size*
- Population Size
- Resource Constraints
- Strength of Generalization
- Bias and Ethics
Knowledge Check
- Practical Exercises in Calculating Sample Size, Adjusting Sample Size, and Interpreting Results

Combining Results
- Nomenclature
- Combining Error Rates
- Other Weighted Averages
- Combining Non-Random Data
- Generalization and Extrapolation
- Statistical Tests

Reporting
- Mock Report
- What to Include

Audit Program
- Why Do an Audit Program?
- Audit Program Example
- Sortable Audit Program
- Audit Program vs. Audit Sampling
Course Information

Course Duration: 2 Days

CPE Hours Available: 16

Knowledge Level: Basic

Field(s) of Study: Statistics

Prerequisite(s): None

Advance Preparation: None

Delivery Format(s): eLearning (Group-Internet-Based); On-site Training (Group-Live); Seminar (Group-Live)