COURSE SYLLABUS

Practical Statistical Sampling for Auditors Course

Learn how to design, perform, and interpret statistical samples used in auditing, using Excel and case-based techniques.

> Group classes (Live Online) and onsite training are available for this course. For more information, email onsite@graduateschool.edu or visit: https://sdfm.graduateschool.edu/courses/practical-statistical-sampling-for-auditors



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Course Outline

Module 1: Sampling Standards and Data Description

- Understand AICPA audit sampling standards and terminology
- Explore descriptive statistics: mean, median, mode, standard deviation, and more
- Utilize Excel for descriptive statistics and frequency distributions
- Identify types of variables and understand their role in audit sampling
- Apply the concept of standard deviation and Z-values in audit contexts

Module 2: Introduction to Sampling

- Differentiate between when to sample and when not to
- Understand benefits and principles of probability sampling
- Learn types of sampling: simple, stratified, and cluster sampling
- Apply planning steps for audit sampling including sample unit selection and stratification

Module 3: Unrestricted Random Sampling

- Define simple random sampling and its role in auditing
- Generate random samples using Excel functions like RAND and RANDBETWEEN
- Use sampling results to calculate population estimates
- Practice with real-world audit scenarios involving random sampling

Module 4: Controlling Sampling Risk

- Understand types of sampling risk and how to mitigate them
- Compute precision, standard error, and confidence intervals
- Apply confidence statements and understand their impact on audit findings
- Determine sample size based on risk and desired precision

Module 5: Difference and Ratio Estimation

- Explore difference, ratio, and mean-per-unit estimation methods
- Learn their advantages, disadvantages, and statistical implications
- Apply regression estimation in sampling
- Solve problems involving these estimation techniques

Module 6: Attribute Sampling Methods

- Understand attribute data types and estimation methods
- Use attribute estimation and discovery sampling formulas
- Evaluate when to use discovery, estimation, or acceptance sampling
- Assess errors and implications of different attribute sampling strategies

Module 7: Practice Set

- Apply concepts from all previous modules in guided exercises
- Interpret and analyze real-world audit data

Module 8: Summary

- Review best practices and common pitfalls in audit sampling
- Use visual aids and summary documents to consolidate learning
- Learn to effectively report sampling results in audit documentation