COURSE SYLLABUS

Data Analysis Package (Self-Paced)

This package builds foundational and intermediate data analysis skills that help professionals transform raw data into meaningful insights for decision making. Participants learn how to understand data structures, assess data quality, use Excel analytical tools, interpret statistical results, and apply responsible data practices across organizational environments.

> Group classes (Live Online) and onsite training are available for this course. For more information, email onsite@graduateschool.edu or visit: https://www.graduateschool.edu/courses/data-analysis-package-self-paced



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Course Outline

This package includes these courses

- Data Analysis Basic Course (Self-Paced) (6 Hours)
- Data Analysis Intermediate Course (Self-Paced) (6 Hours)

Data Analysis Basic Course (Self-Paced)

This course provides a comprehensive introduction to the foundational concepts of data analytics, including data structures, data quality, visualization, governance, and reporting tools. It focuses on transforming raw data into meaningful insights that support informed decision making in business and audit environments.

- Explain why data analytics is valuable and how it supports decision making in business and audit contexts.
- Distinguish between structured and unstructured data, and describe common internal and external data sources.
- Compare transactional systems and analytical systems, including the purpose of data marts, data warehouses, and ETL processes.
- Identify common data quality issues and apply basic normalization concepts to improve consistency when joining datasets.
- Describe core data governance concepts, including data definitions and stewardship, and explain why they matter.
- Recognize privacy and compliance considerations, including how to handle PII and PHI responsibly.
- Use basic data visualization principles to communicate insights clearly and identify trends or outliers.
- Apply foundational Excel techniques for analysis, including sorting, filtering, common functions, and pivot tables and charts.

Data Analysis Intermediate Course (Self-Paced)

This course develops practical intermediate data analysis skills that enable professionals to evaluate datasets, identify data quality issues, and apply analytical techniques that support informed decision making. Participants learn how to prepare, analyze, and interpret data using widely available analytical tools while considering governance and regulatory requirements.

- Evaluate the structure and sources of organizational data in order to determine how datasets support analytical decision making.

- Assess data quality by identifying inconsistencies, duplicates, missing values, and integrity issues within datasets.
- Prepare and transform datasets using Excel tools and functions to ensure data is suitable for analysis.
- Apply analytical techniques including pivot tables, descriptive statistics, and sampling to interpret data patterns.
- Analyze datasets to identify trends, anomalies, and operational insights relevant to organizational decision making.
- Interpret statistical outputs to support evidence-based conclusions and communicate analytical findings.
- Apply data governance, regulatory, and ethical considerations when conducting data analysis.