COURSE SYLLABUS

Data Analytics Certification

Gain comprehensive, hands-on training in the core tools of modern data analytics. This program covers Excel, SQL, Tableau, and Power BI, equipping you with the practical skills for the official exams.

Group classes (NYC) and onsite training are available for this course. For more information, email corporate@nobledesktop.com or visit: https://www.nobledesktop.com/certificates/data-analytics-certification



hello@nobledesktop.com • (212) 226-4149

Course Outline

This package includes these courses

- Excel Level I: Fundamentals (6 Hours)
- Excel Level II: Intermediate (6 Hours)
- Excel Level III: Advanced (6 Hours)
- SQL Bootcamp (18 Hours)
- Tableau Bootcamp (12 Hours)
- Power BI Bootcamp (12 Hours)
- Power BI Advanced (6 Hours)

Excel Level I: Fundamentals

- Get comfortable with the Excel interface and learn multiple ways to enter and organize data in a worksheet.
- Work with rows, columns, and worksheets by inserting, deleting, hiding, grouping, and managing spreadsheet elements.
- Build foundational Excel skills with Autofill, basic calculations, AutoSum, and essential functions such as SUM, AVERAGE, MAX, MIN, and COUNT.
- Use formulas more effectively with absolute references, logical true/false tests, text functions, and multi-input functions.
- Format spreadsheets for clarity with cell formatting and conditional formatting that highlights data based on specific rules.
- Create visual reports with column charts, line charts, pie charts, sparklines, and Excel Tables.
- Manage workbooks more efficiently using Freeze Panes, printing tools, display options, templates, and essential keyboard shortcuts and Excel tips.
- Reinforce key concepts through end-of-class projects designed to review what you learned.

Excel Level II: Intermediate

Learn intermediate Excel functions like VLOOKUP and SUMIFS, and how to summarize data with Pivot Tables, Sort & Filter databases, and split and join text. Gain the skills needed to utilize complex Excel functions and prepare for more advanced

training.

- Navigate worksheets more efficiently using keyboard shortcuts and Excel tools that speed up movement within and between cells.
- Work with formulas and text by reviewing calculation methods, splitting text with Text to Columns, and joining text with CONCAT and the ampersand.
- Manage cell ranges with Paste Special, Paste Special Values, and named ranges to format data, hardcode results, and simplify references in calculations.
- Use database tools such as VLOOKUP, XLOOKUP, Sort & Filter, and Remove Duplicates to find, organize, and clean large sets of data.
- Build PivotTables to summarize large databases, group data within PivotTables, and create multiple PivotTables on a single worksheet.
- Apply logical, math, and statistical functions including IF, AND, OR, SUBTOTAL, SUMIFS, and COUNTIFS to analyze data based on conditions and filtered results.
- Improve data quality with Data Validation and reinforce key course concepts by completing an end-of-class project.

Excel Level III: Advanced

Learn all of the most complex features of Microsoft Excel in this advanced training course—Excel functions, macros, and data analysis to improve efficiency and manage complex data in any job setting. This advanced course is ideal for Excel power-users.

- Use advanced navigation tools, Autofill techniques, Hot Keys, and Go To Special to move through worksheets and work more efficiently.
- Build stronger formulas with mixed references, cell auditing tools, date functions, and custom number formats.
- Create advanced logic with nested IF statements and IF formulas that incorporate AND/OR criteria for more flexible results.
- Perform What-If Analysis with Goal Seek and Data Tables to test variables and evaluate possible outcomes.
- Analyze data with advanced PivotTable tools, including base fields and sets, calculated fields, and PivotCharts.
- Use XMATCH, INDEX-MATCH, macros, and dynamic arrays to create powerful lookups, automate tasks, and complete an end-of-class project reviewing key concepts.

SQL Bootcamp

Learn how to extract, filter, and manipulate data using SQL. This course covers PostgreSQL fundamentals, database querying, table joins, and advanced techniques for handling large datasets.

- Write SQL queries to retrieve, filter, and sort data efficiently.
- Use joins to combine information from multiple tables and establish relationships.
- Apply aggregate functions like SUM, COUNT, AVG, and GROUP BY to summarize data.
- Work with subqueries, conditional logic (CASE statements), and advanced string functions.
- Optimize queries using indexes, data type conversions, and best practices.
- Explore views and user-defined functions to streamline database management.

Tableau Bootcamp

Develop the skills to turn raw data into compelling visual stories with Tableau, the industry-leading data visualization platform. This hands-on bootcamp teaches you to explore, analyze, and publish dashboards that communicate insights clearly and effectively.

- Connect to datasets, then clean, filter, and structure data for visual storytelling
- Create a variety of visualizations, including bar charts, line charts, treemaps, heat maps, and dual-axis charts
- Build custom fields, apply aggregates, and format charts with labels, tooltips, colors, and axes

- Work with geographic data to build interactive map visualizations, including choropleths and proportional symbol maps
- Customize dashboards and stories for different audiences and devices using Tableau's interactivity tools
- Publish to Tableau Cloud and export dashboards for professional sharing and collaboration

Power BI Bootcamp

Learn how to transform raw data into powerful, interactive dashboards with Power BI, a leading business intelligence tool used across industries. This hands-on bootcamp covers data connections, visual design, and publishing reports for real-world insights.

- Import and clean data from Excel, CSV, and other sources using Power Query
- Create interactive visualizations, including charts, maps, cards, and slicers, to explore trends and patterns
- Use DAX to build measures, calculated columns, and custom aggregations
- Manage table relationships to create dynamic, filterable reports with a professional finish
- Set up dashboards, schedule data refreshes, and manage reusable datasets for scalable reporting
- Share and collaborate on reports via the Power BI Service

Power BI Advanced

This advanced Power BI course focuses on building more reliable data models using proper relationships, filter flow, fiscal and calendar date tables, Row-Level Security, and more.

- Build better data models by understanding relationships, cardinality, and cross-filter direction
- Design reliable data models and avoid common modeling mistakes
- Create and use hierarchies to organize and drill into data
- Control visual order with custom sort columns
- Create reusable date tables supporting fiscal and calendar years
- Add parameters to make reports interactive and flexible
- Implement Row-Level Security (RLS) with Static and Dynamic roles