



Certified Data Analysis & Visualization Professional Course Training Schedule

Introduction:

This is a 3 months **Certified Data Analysis & Visualization Professional Course** that aims at making you an expert in Data Analysis and Visualization. We will first meet physically for 3 days, then continue online for 3 months, meeting once a week for one and a half hours. For maximum learning, this course will be delivered through a combination of live and E-Learning sessions.

Live Sessions

We will meet for 3 days (9am to 5pm) and learn everything that we need to in order to become Certified Data Analyst Professionals. This will be a practical training, and every participant will be guided through the process of Analyzing and Visualizing a dataset of their choice. The sessions will be highly interactive and lively.

E-Learning Sessions

Every participant will be registered on an E-learning Platform. Here, we have a host of prerecorded sessions, PPT notes, M&E; toolkits, templates, samples, links etc all aimed at equipping participants with the most current Data Analysis skills. After each session, a self-assessment quiz is provided to reinforce learning. Once a participant completes a session including the quiz, the system opens the following session.

Course Completion

In order for you to be considered to have completed the course, you will need to fulfill the following criteria:

1. Attend the physical training (or join the class virtually)
2. Create Interactive dashboards and reports using Power BI and Tableau
3. Understand best practices for effective data analysis using SPSS, STATA and R
4. Complete 15 E-Learning lessons and pass 5 quizzes
5. Clear the fees

A certificate will be issued upon completion of the course, which will make you eligible be a Data Analyst Professional

Day 1		
Time	Topic / Activity	Details
08:30 AM - 09:00 AM	Registration & Welcome	Participant check-in and opening remarks
09:00 AM - 10:30 AM	Introduction to Data Analysis	Core concepts, importance in various fields, and real-world applications of data analysis
10:30 AM - 10:45 AM	Tea/Coffee Break	
10:45 AM - 12:30 PM	SPSS: Basics	Importing, cleaning, and organizing data, Coding Data in SPSS
12:30 PM - 13:30 PM	Lunch Break	
13:30 PM - 15:30 PM	SPSS: Practical Exercises	Hands-on practice with calculating descriptive statistics (mean, median, mode, standard deviation), creating various charts (bar, line, pie), and conducting basic statistical analysis
15:30 PM - 15:45 PM	Tea/Coffee Break	
15:45 PM - 17:00 PM	SPSS Output Interpretation	Understanding the generated output tables and charts, focusing on best practices for effectively reporting data findings.
17:00 PM - 17:30 PM	Q&A; and Wrap-Up	Session for clarifications, discussion on the day's topics, and assignment of optional preparation for Day 2

Day 2		
Time	Topic / Activity	Details
08:30 AM - 09:00 AM	Recap & Q&A;	Review of Day 1 concepts and addressing participant questions.
09:00 AM - 10:30 AM	R: Introduction & Data Analysis	Overview of the R environment, using R for data cleaning, data manipulation (e.g., filtering, merging), and basic statistical analysis.
10:30 AM - 10:45 AM	Tea/Coffee Break	
10:45 AM - 12:30 PM	R: Practical Exercises	Hands-on exercises in advanced data transformation and performing common statistical modeling techniques.
12:30 PM - 13:30 PM	Lunch Break	
13:30 PM - 15:30 PM	Stata: Introduction & Analysis	Introduction to the Stata interface, importing data, essential data cleaning, and initial regression modeling.
15:30 PM - 15:45 PM	Tea/Coffee Break	
15:45 PM - 17:00 PM	Stata: Practical Exercises	Applied exercises focused on running various regression models, utilizing data models, and interpreting Stata output.
17:00 PM - 17:30 PM	Integrating SPSS, R & Stata	Discussion and demonstration of how to combine the strengths of all three tools for building reproducible workflows and following best practices in statistical projects.

Day 3		
Time	Topic / Activity	Details
08:30 AM - 09:00 AM	Recap & Q&A;	Review of Day 2 concepts, especially the R and Stata coding fundamentals.
09:00 AM - 10:30 AM	Tableau: Introduction	Connecting to various data sources, preparing and cleaning data within Tableau, and creating initial data visualizations.
10:30 AM - 10:45 AM	Tea/Coffee Break	
10:45 AM - 12:30 PM	Tableau: Practical Exercises	Building interactive dashboards and mastering techniques for effective data storytelling with visualizations.
12:30 PM - 13:30 PM	Lunch Break	
13:30 PM - 15:30 PM	Power BI: Introduction	Understanding the Power BI ecosystem, data modeling principles, and creating compelling visualizations and reports.
15:30 PM - 15:45 PM	Tea/Coffee Break	
15:45 PM - 17:00 PM	Power BI: Practical Exercises	Hands-on session on building dynamic and functional dashboards using Power BI features.
17:00 PM - 17:30 PM	Integrating All Tools	Capstone session demonstrating the full data pipeline: from raw data (analyzed in SPSS/R/Stata) to final visualization and actionable insights (in Tableau/Power BI)
17:00 PM - 17:30 PM	Closing & Certification Guidance	Final remarks, course evaluation, certification details, and next steps for the optional 3-month online training.

Vantage Africa
School of Leadership

3 Months Post Training (Online) Schedule

Week	Topic (Zoom Link to be Provided)- Every Wednesday Evening, 2 hours
Week 1	Introduction to Data Analysis & Tools Overview: <i>Understand data analysis concepts, workflow, and toolset (SPSS, STATA, Power BI, Tableau, Fabric).</i>
Week 2	Excel Basics for Data Analysis: <i>Review essential Excel features - formulas, formatting, sorting, and filtering.</i>
Week 3	Descriptive Statistics & Data Exploration: <i>Summarize and explore data distributions.</i>
Week 4	Inferential Statistics & Hypothesis Testing: <i>Conduct t-tests, chi-square tests, and ANOVA.</i>
Week 5	Regression Analysis & Correlation: <i>Apply linear and logistic regression using R, Stata, and SPSS.</i>
Week 6	Advanced Data Management Techniques: <i>Connect data, model relationships, and build interactive dashboards.</i>
Week 7	Power BI - Dashboard Design & Data Modeling: <i>Connect data, model relationships, and build interactive dashboards.</i>
Week 8	Tableau - Advanced Visual Analytics: <i>Explore Tableau for storytelling and interactive dashboards.</i>
Week 9	Microsoft Fabric - Introduction & Architecture: <i>Understand Microsoft Fabric environment and its role in analytics.</i>
Week 10	Microsoft Fabric with Power BI Integration: <i>Connect Fabric as a datasource to Power BI for real-time analytics.</i>
Week 11	Predictive Analytics - Foundations: <i>Introduce predictive modeling concepts (regression, classification, etc.).</i>
Week 12	Machine Learning & Model Evaluation: <i>Build simple predictive models and assess their performance.</i>

Vantage Africa
School of Leadership

Developing Transformational Leaders