Vantage Africa
School of Leadership

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 2 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 2 days physically as from (9am to 5pm) and the 3rd day we proceed online from (9am to 2pm) 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

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	Time	Topic / Activity	Details
Day 1			
	08:30 AM – 09:00AM	Registration & Welcome	Welcome, objectives, expectations, overview of all tools
	09:00AM – 10:15AM	**Tableau**	Intro to Tableau, connecting to data, exploring workspace
	10:15 AM – 10:30 AM	Tea/Coffee Break	
	10:30 AM – 12:00 PM	**Tableau**	Basic visuals: bar charts, line charts, maps
	12:00 PM – 1:00 PM	Lunch Break	
	1:00 PM – 2:30 PM	**SPSS**	Data understanding, variable definition, data cleaning
	2:30 PM – 4:30 PM	**SPSS**	Descriptive analysis, cross-tabs, basic tests (t-test, chi-square, correlation)
Day 2			
	8:30 AM – 10:15 AM	Recap & Q&A	Review Tableau & SPSS, resolve participant issues
	10:15 AM – 10:30 AM	**Tea Break**	Morning refresh
	10:30 AM – 12:00 PM	**Tableau**	**Dashboard design, interactivity, filters, story points**
	12:00 PM – 1:00 PM	**Lunch break**	
	1.00PM-1.10PM	Introduction **To e-learning**	
	1:10 PM – 2:40 PM	**Power BI**	Data import, Power Query, shaping data

2:40 PM – 4:40 PM	**Power BI**	Data modeling, DAX basics, report building

Day 3 (Online Session)

9:00 AM – 10:15 AM	**Stata**	Data management: import, clean, summarize; basic commands
10:15 AM – 11:15 AM	**Stata**	**Basic statistical analysis and interpretation:** descriptive statistics, simple regression, and understanding STATA outputs (tables, coefficients, p-values, and graphs)
11:15 AM - 11:30AM	**Short Break**	
11:30AM – 12:45AM	**R**	RStudio basics, reading data, data structures
1:00PM – 2:30PM	**R**	dplyr wrangling, ggplot2 plots, practical exercises; final Q&A

Week	Topic (Zoom Link to be Provided)- Every Tuesday Evening, 1.5 hours
Week 1	**Introduction to Data Analysis & Tools Overview:** *Understand data analysis concepts, workflow, and toolset (SPSS,STATA, Power BI, Tableau, Fabric).*
Week 2	**Excel Basics for Data Analysis: R***eview essential Excel features — formulas, formatting, sorting, and filtering.*
Week 3	**Descriptive Statistics & Data Exploration:** *Summarize and explore data distributions.*
Week 4	**Inferential Statistics & Hypothesis Testing:** *Conduct t-tests, chi-square tests, and ANOVA.*
Week 5	**Regression Analysis & Correlation:** *Apply linear and logistic regression using R, Stata, and SPSS.*
Week 6	**Advanced Data Management Techniques:** *Connect data, model relationships, and build interactive dashboards.*
Week 7	**Power BI – Dashboard Design & Data Modeling:** *Connect data, model relationships, and build interactive dashboards.*
Week 8	**Tableau –** Advanced Visual AnalyticsExplore Tableau for storytelling and interactive dashboards.
Week 9	**Microsoft Fabric – Introduction & Architecture:** *Understand Microsoft Fabric environment and its role in analytics.*
Week 10	**Microsoft Fabric with Power BI Integration:** *Connect Fabric as a datasource to Power BI for real-time analytics.*
Week 11	**Predictive Analytics – Foundations:** Introduce predictive modeling concepts (regression, classification, etc.).
Week 12	**Machine Learning & Model Evaluation**: Build simple predictive models and assess their performance.