

Data Science with Visualisation & Analysis

P-DSVA (Professional Certificate Course in Data Science with Visualisation & Analysis)

DURATION: 335Hrs/8 Months

OBJECTIVE:

The "Data Science with Visualization & Analysis" course aims to equip participants with essential skills. It covers data handling, exploratory data analysis, data visualization, statistical analysis, machine learning fundamentals, practical data analysis, ethical considerations, and effective data communication. Optional advanced topics and specialized tracks are available. The course encourages a commitment to continuous learning. Graduates will be prepared for data analysis roles in diverse industries.

Fundamentals Data Science	Introduction to Statistics	Introduction to Data analysis & Data Visualisation	MIS with Advanced Excel	Macros with VBA
MS Access	Python for Data Science (SciPy, Seaborn, Matplotlib, scikit-learn, Pandas, NumPy)	Machine Learning	Artificial Intelligence	Tableau
Power BI	Mongo DB	SQL	Project & Case Study	

LEARNING OUTCOMES:

- » **Data Acquisition and Preparation:** Ability to collect and preprocess data from various sources, including cleaning, handling missing values, and transforming data for analysis.
- » **Exploratory Data Analysis (EDA):** Proficiency in using statistical and visualization techniques to explore and understand data distributions, patterns, and relationships.
- » **Data Visualization:** Mastery of data visualization tools and libraries (e.g., Matplotlib, Seaborn, ggplot2, D3.js) to create effective and informative charts, graphs, and interactive visualizations.
- » **Statistical Analysis:** Knowledge of statistical methods for hypothesis testing, regression analysis, clustering, and classification. Ability to interpret statistical results and draw meaningful insights from data.
- » **Machine Learning:** Familiarity with machine learning algorithms and techniques for predictive modeling and classification tasks. Hands-on experience with implementing machine learning models and evaluating their performance.
- » **Data Storytelling:** Skills to communicate data findings effectively through storytelling, using visualizations to support and enhance the narrative.
- » **Data Ethics and Privacy:** Awareness of ethical considerations in data science, including privacy, bias, and responsible data handling.
- » **Data Tools and Software:** Proficiency in using data science tools and software such as Python, R, Jupiter Notebooks, and data visualization libraries.

CAREER OPTIONS:

- Data Analyst**
- Business Intelligence (BI) Analyst**
- Data Visualization Specialist**
- Machine Learning Engineer**
- Data Analytics Manager**