Data Analytics & Business Intelligence Mastery Course

(Complete Data Analyst Professional Program)

Based on the curriculum structure and topics from the Udemy course
Complete Data Analyst Bootcamp – From Basics to Advanced

Data Analytics & Business Intelligence (Job-Ready Course)

SECTION 1: Introduction to Data Analytics

What You Will Learn:

- Introduction to Data Analytics
- Role of a Data Analyst
- Data Analytics workflow
- Types of data and datasets
- Business Intelligence fundamentals
- Understanding KPIs and metrics
- Real-world applications of Data Analytics
- Career opportunities in Data Analytics

Tools Covered:

- Python
- Excel
- SQL
- Power BI
- Tableau
- Jupyter Notebook

SECTION 2: Python Fundamentals for Data Analytics

What You Will Learn:

- Python basics for Data Analysis
- Variables, loops, functions & OOP
- Working with files and datasets
- NumPy fundamentals
- Pandas for data manipulation
- Data cleaning techniques
- Data visualization basics
- Working with CSV & Excel files

Minor Projects:

- Sales Data Analysis
- Student Dataset Analysis
- CSV Data Cleaning Project

SECTION 3: Statistics & Mathematics for Data Analytics

What You Will Learn:

- Descriptive statistics
- Probability fundamentals
- Mean, median & mode
- Standard deviation and variance
- Correlation and covariance
- Data distributions
- Sampling techniques
- Hypothesis testing basics

Practical Exercises:

- Statistical Data Analysis
- Correlation Matrix Visualization
- Probability-based Exercises

SECTION 4: Data Cleaning & Exploratory Data Analysis (EDA)

What You Will Learn:

- Data preprocessing workflow
- Handling missing values
- Duplicate data removal
- Outlier detection and treatment
- Exploratory Data Analysis techniques
- Feature engineering basics
- Business insight extraction
- Data storytelling

Libraries Covered:

- Pandas
- NumPy
- Matplotlib
- Seaborn

Minor Projects:

- Netflix Dataset Analysis
- Ecommerce Customer Analysis
- Titanic Dataset EDA

SECTION 5: SQL for Data Analysts

What You Will Learn:

- Database fundamentals
- SQL syntax and queries
- SELECT, WHERE, ORDER BY
- GROUP BY and aggregation functions
- Joins and relationships
- Subqueries and nested queries
- Views and stored procedures
- Real-world SQL problem solving

Databases Covered:

- MySQL
- PostgreSQL

Minor Projects:

- Employee Database Analysis
- Ecommerce SQL Dashboard

- Sales Reporting Queries

SECTION 6: Data Visualization & Dashboard Design

What You Will Learn:

- Principles of data visualization
- Dashboard design fundamentals
- Business Intelligence reporting
- Interactive dashboard creation
- KPI visualization techniques
- Charts, graphs and storytelling
- Report optimization
- Visual analytics workflow

Tools Covered:

- Power BI
- Tableau
- Excel Dashboards

Minor Projects:

- Sales Dashboard
- HR Analytics Dashboard
- Financial Reporting Dashboard

SECTION 7: Advanced Excel for Data Analytics

What You Will Learn:

- Advanced Excel formulas
- Pivot Tables and Pivot Charts
- Data validation techniques
- Conditional formatting
- Lookup functions (VLOOKUP/XLOOKUP)
- Dashboard creation in Excel

- Automation basics
- Excel reporting workflow

Minor Projects:

- Automated Reporting Sheet
- Budget Analysis Dashboard
- Inventory Tracker

SECTION 8: Business Intelligence & Reporting

What You Will Learn:

- Business Intelligence concepts
- Data-driven decision making
- Reporting automation
- KPI tracking systems
- Business reporting standards
- Data interpretation techniques
- Stakeholder presentation skills
- Real-world analytics workflow

Major Projects:

- Retail Business Dashboard
- Customer Analytics System
- Financial Performance Dashboard

SECTION 9: Introduction to Machine Learning for Analysts

What You Will Learn:

- Introduction to Machine Learning
- Supervised vs Unsupervised Learning
- Regression and classification basics
- Data preparation for ML
- Model evaluation fundamentals
- Predictive analytics concepts
- Real-world ML use cases

Algorithms Covered:

- Linear Regression
- Logistic Regression
- Decision Trees
- K-Means Clustering

Minor Projects:

- Sales Prediction Model
- Customer Segmentation
- Student Performance Prediction

SECTION 10: Real World Data Analytics Projects

Major Projects:

- Ecommerce Analytics Dashboard
- HR Analytics System
- Stock Market Data Analysis
- Customer Churn Analysis
- Sales Forecasting Dashboard
- Social Media Analytics Report

What You Will Learn:

- Real-world data workflow
- End-to-end analytics projects
- Business problem-solving using data
- Reporting and presentation techniques
- Portfolio-ready project development

SECTION 11: Portfolio, Freelancing & Career Preparation

What You Will Learn:

- Building a professional Data Analyst portfolio

- GitHub & Kaggle profile optimization
- Resume building for Data Analyst roles
- Interview preparation
- Freelancing workflow
- Client communication
- LinkedIn optimization
- Personal branding for analysts

Bonus Topics:

- AI Tools for Data Analysts
- Generative AI for Analytics
- Automation Tools
- Modern Data Analytics Trends

SECTION 12: Certification & Placement Opportunity

Included:

- Course Completion Certificate
- Real-world project evaluation
- Placement assistance
- Internship opportunity guidance
- Portfolio review support
- Career mentorship sessions

Software & Tools Covered

- Python
- Excel
- SQL
- Power BI
- Tableau
- Jupyter Notebook
- Pandas
- NumPy
- Matplotlib
- Seaborn
- MySQL

- PostgreSQL

Course Duration

- 3 Months
- Beginner to Advanced Level
- 100% Practical & Project-Based Learning

Who This Course Is For

- Beginners interested in Data Analytics
- Computer Science Students
- Business Analysts
- Aspiring Data Analysts
- Working Professionals
- Freelancers
- Entrepreneurs
- Researchers

Learning Outcome

After completing this course, students will be able to:

- Analyze and clean real-world datasets
- Build professional dashboards and reports
- Use SQL for business data analysis
- Create data visualizations and insights
- Work with Power BI, Tableau & Excel professionally
- Perform Exploratory Data Analysis (EDA)
- Build portfolio-ready analytics projects
- Apply for Data Analyst and BI roles professionally

The course emphasizes practical learning, real-world datasets, dashboard building, and strong fundamentals in analytics tools and business intelligence workflows. (udemy.com)