

# Gurukul Educational And Research Institute

SHIKSHA SANKUL, SAHASTRADHARA ROAD, NEARBY IT PARK,  
DEHRADUN, UTTARAKHAND PIN CODE - 248013



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## DIPLOMA IN DATA ANALYSIS

**Duration: 1 Year Eligibility: 12th Pass (Maths Preferred) / Basic Computer Knowledge**  
**Mode: Theory + Practical+ LiveProjects**

### Semester 1 – Data Fundamentals

#### **Introduction to Data Analysis**

- What is Data?
- Types of Data (Structured / Unstructured)
- Role of Data Analyst
- Data Lifecycle
- Data Ethics

#### **Excel for Data Analysis**

- Excel Interface
- Formulas & Functions
- VLOOKUP / HLOOKUP
- Pivot Tables
- Charts & Graphs
- Data Cleaning

#### **Practical:**

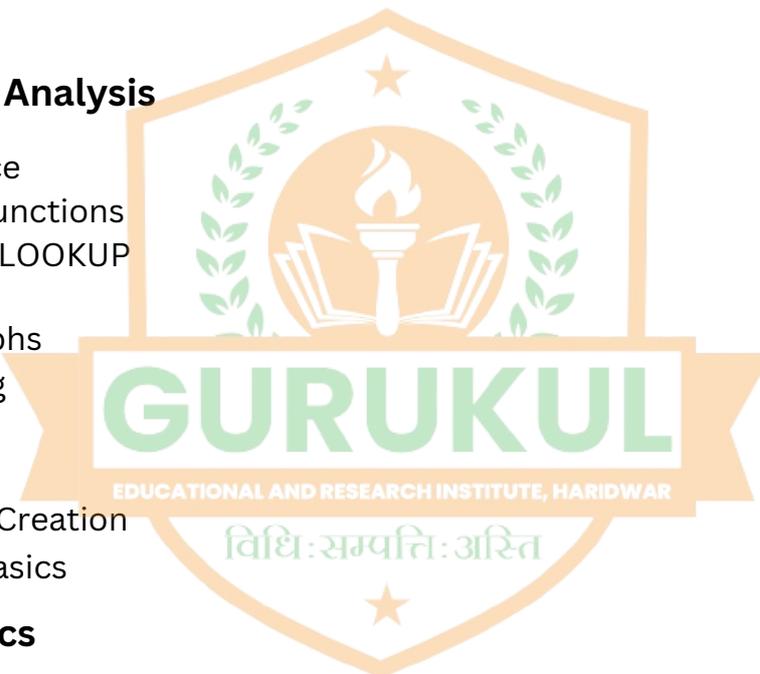
- Sales Report Creation
- Dashboard Basics

#### **Statistics Basics**

- Mean, Median, Mode
- Standard Deviation
- Probability Basics
- Sampling Techniques
- Correlation

#### **SQL for Data Analysis**

- Introduction to Databases
- SQL Basics
- SELECT Statement
- WHERE Clause
- GROUP BY
- JOIN



## **Practical:**

### **Database Query Practice**

### **Semester 2 – Advanced Data Analysis**

### **Python for Data Analysis**

- Python Basics
- NumPy Pandas
- Data Cleaning
- Data Visualization

### **Data Visualization Tools**

- Power BI Basics
- Dashboard Creation
- Report Sharing
- Data Storytelling

### **Business Analytics**

- Market Analysis
- Sales Analysis
- Customer Behavior Analysis
- KPI Measurement

### **Capstone Project**

- Real Data Project
- Dashboard Creation
- Report Presentation
- Viva

### **Examination Pattern**

- Theory – 100 Marks
- Practical – 100 Marks
- Project – 100 Marks
- Viva – 100 Marks

### **Career Scope**

- Data Analyst
- Business Analyst (Entry Level)
- MIS Executive
- Reporting Executive
- Data Executive

