

DATA & AI

Data Analytics with Gen AI

Find the story in your data. Build the skills to turn raw numbers into insights people can use.

7 months**5 days a week****2-3 hours a day**

Your learning path

11 modules covering the concepts, tools and practical work in this course.

01 Introduction to Data Analytics

- What is Data
- Types of Data
- Data Analytics Overview
- Data Analytics Lifecycle
- Roles & Responsibilities of a Data Analyst
- Applications of Data Analytics
- Tools Used in Data Analytics

02 Excel for Data Analytics

- Excel Interface & Basics
- Data Cleaning Techniques
- Sorting & Filtering
- Conditional Formatting
- Excel Formulas & Functions
- Pivot Tables & Pivot Charts
- Data Validation
- Dashboard Creation in Excel

03 SQL for Data Analytics

- Introduction to Databases

- RDBMS Concepts
- SQL Architecture
- Data Types
- Constraints
- DDL, DML, DQL, DCL, TCL
- Joins
- Subqueries
- Views
- Indexes
- Stored Procedures
- SQL for Data Analysis Use Cases

04 Python for Data Analytics

- Introduction to Python
- Python Environment Setup
- Variables & Data Types
- Operators
- Control Structures
- Functions
- Modules & Packages
- File Handling
- Exception Handling

05 Python Libraries for Data Analysis

- NumPy
- Pandas
- Data Cleaning & Manipulation
- Exploratory Data Analysis (EDA)
- Matplotlib
- Seaborn

06 Statistics for Data Analytics

- Importance of Statistics
- Descriptive Statistics

- Inferential Statistics
- Measures of Central Tendency
- Measures of Dispersion
- Probability Concepts
- Probability Distributions
- Sampling Techniques
- Hypothesis Testing
- Correlation & Regression

07 Power BI

- Introduction to Power BI
- Power BI Architecture
- Data Importing
- Data Modeling
- Power Query
- DAX Functions
- Visualizations
- Dashboards & Reports
- Publishing & Sharing Reports

08 Business Analytics Concepts

- Business Analytics Overview
- Types of Analytics
- KPIs & Metrics
- Business Decision Making
- Case Studies

09 Generative AI for Data Analytics

- Introduction to Generative AI
- AI vs ML vs Gen AI
- Large Language Models (LLMs)
- Prompt Engineering
- Gen AI for Data Cleaning
- Gen AI for Data Analysis

- AI-Powered Insights & Reporting
- Ethical AI & Limitations

10 Projects & Case Studies

- Real-Time Analytics Projects
- Business Case Studies
- Dashboard Projects
- End-to-End Analytics Project
- Gen AI Integrated Project

11 Interview & Placement Preparation

- Resume Building
- Portfolio Development
- Interview Preparation
- Mock Interviews
- Career Guidance

Curriculum: <https://gencorpusdatahub.com/courses/>