



Zestminds Academy

Data Science Training Syllabus

45 Days | 3 Months | 6 Months Data Science Pro Track

Zestminds Academy, Mohali

Training Mode	Offline classroom training in Mohali
Program Options	45 Days Data Science Foundation, 3 Months Data Science Program, 6 Months Data Science Pro Track
Batch Timings	10:00 AM - 1:00 PM / 2:00 PM - 5:00 PM
Fees	INR 7,000 for 45 Days / Confirm current fee for 3 Months / INR 4,000 per month for 6 Months
Suitable For	B.Tech, BCA, MCA, M.Tech, diploma students, final-year students, freshers and beginners
Contact	+91-9056277961 Zestminds Academy, Mohali

This syllabus is designed to help students understand what they will learn in each Data Science training track before joining. Exact module depth, datasets, assignments and project scope may vary by batch, student readiness and selected duration.

OVERVIEW

Data Science Training Overview

The Data Science Training program at Zestminds Academy is built for students who want practical data skills, not only theory. Students learn Python for data work, datasets, NumPy, Pandas, SQL basics, data cleaning, visualization, EDA, Machine Learning basics, project workflows and GitHub documentation.

Program Options

45 Days Data Science Foundation This is for 45 days. Short-duration practical training for students who want exposure to Python for data work, datasets, Pandas, data cleaning, visualization, SQL basics and introductory ML.	3 Months Data Science Program This is for 3 months. Structured learning for beginners and freshers with Python, NumPy, Pandas, SQL, statistics, EDA, visualization and starter project exposure.
6 Months Data Science Pro Track This is for 6 months. First 3 months are for Data Science learning and ML foundation. Next 3 months are for major capstone project development with GitHub documentation.	Offline Classroom Mode Students learn in Mohali with mentor support, doubt discussion, dataset assignments and practical data project practice.

Students Will Learn

- Python programming for data work and practical dataset handling
- CSV and Excel dataset reading, cleaning and preparation
- NumPy and Pandas for filtering, grouping, sorting and analysis
- SQL basics for structured data querying
- Exploratory Data Analysis and visualization reports
- Statistics basics used in Data Science workflows
- Machine Learning basics including regression, classification and evaluation
- Git and GitHub basics for project presentation
- Capstone project planning and GitHub documentation in the 6-month track

THIS SYLLABUS IS FOR 45 DAYS

45 Days Data Science Foundation Syllabus

This 45-day syllabus is for students who want a short-duration Data Science foundation with Python, datasets, Pandas, data cleaning, visualization, SQL basics and introductory Machine Learning exposure.

Duration: 45 Days | Fee: INR 7,000 | Mode: Offline Classroom

Module 1: Data Science and Python Basics

- What is Data Science and where it is used
- How Data Science projects are structured
- Python setup for data work
- Jupyter Notebook / VS Code workflow
- Variables, data types, operators and basic functions

Module 2: Dataset Basics and CSV/Excel Files

- What is a dataset
- Rows, columns, records and fields
- CSV and Excel file understanding
- Reading basic dataset files
- Making first observations from data

Module 3: NumPy and Pandas Introduction

- Series and DataFrame basics
- Reading CSV/Excel data
- Selecting rows and columns
- Filtering and sorting data
- Basic grouping and summarizing

Module 4: Data Cleaning Foundation

- Missing values
- Duplicate records
- Wrong data types
- Basic date and text cleaning
- Clean dataset assignment

Module 5: Visualization and EDA Basics

- What is exploratory data analysis
- Basic charts and plots
- Distribution and comparison thinking
- Finding trends and patterns
- Writing simple observations

Module 6: SQL and ML Introduction

- Basic SQL SELECT and WHERE
- COUNT, SUM and AVG basics
- GROUP BY introduction
- Machine Learning overview
- Regression/classification idea with examples

45 Days Practical Assignments

- CSV data cleaning task
- Pandas filtering and grouping assignment
- Basic EDA report
- Simple visualization report
- SQL query practice
- Mini Data Science foundation project

THIS SYLLABUS IS FOR 3 MONTHS

3 Months Data Science Program Syllabus

This 3-month syllabus is for beginners and freshers who want structured Data Science learning with Python, NumPy, Pandas, SQL, statistics, EDA, visualization, ML basics and starter project exposure.

Duration: 3 Months | Fee: Confirm current fee during counselling | Mode: Offline Classroom

Module 1: Python for Data Science

- Python revision for data work
- Data types and control flow
- Functions for reusable analysis
- Working with files
- Notebook-based coding practice

Module 2: NumPy and Pandas

- NumPy arrays and operations
- Pandas Series and DataFrames
- Reading Excel/CSV files
- Filtering, sorting and grouping
- Merging and combining data

Module 3: Data Cleaning and Preparation

- Missing values and duplicates
- Text and date cleaning
- Outlier understanding
- Data quality checks
- Preparing analysis-ready datasets

Module 4: Statistics for Data Science

- Mean, median and mode
- Variance and standard deviation
- Correlation basics
- Probability introduction
- Sampling and practical interpretation

Module 5: SQL for Data Analysis

- SELECT, WHERE and filtering
- Aggregate functions
- GROUP BY and ORDER BY
- JOIN basics
- Analysis query practice

Module 6: Data Visualization and EDA

- Matplotlib / Seaborn style visualization basics
- Univariate and bivariate analysis
- Trend and comparison charts
- EDA report writing
- Insight-focused observations

Module 7: Machine Learning Basics

- What is ML
- Train-test split
- Regression introduction
- Classification introduction
- Model evaluation basics

Module 8: Starter Data Science Project

- Problem statement
- Dataset cleaning
- EDA report
- Basic model workflow
- GitHub README and project explanation

3 Months Practical Assignments

- Data cleaning assignment using CSV/Excel data
- EDA report with charts and observations
- SQL analysis assignment
- Basic machine learning model assignment
- Starter Data Science project with GitHub upload

THIS SYLLABUS IS FOR 6 MONTHS

6 Months Data Science Pro Track Syllabus

This 6-month syllabus is for students who want deeper Data Science learning, Machine Learning practice, project workflow, capstone development and GitHub documentation.

Duration: 6 Months | Fee: INR 4,000/month | Mode: Offline Classroom | Includes project-focused internship training

6-Month Track Structure

First 3 Months	Data Science learning, Python/Pandas, SQL, statistics, EDA, visualization, ML basics, assignments and debugging.
Next 3 Months	Major capstone project development with GitHub documentation, README writing, project improvement, project explanation and interview preparation.

First 3 Months: Data Science Learning and ML Foundation

- Python for Data Science revision
- NumPy and Pandas data handling
- CSV/Excel dataset cleaning
- SQL basics and analysis queries
- Statistics essentials for data interpretation
- EDA and visualization workflows
- Machine Learning basics
- Regression and classification introduction
- Model evaluation basics
- Git and GitHub basics
- Debugging and notebook improvement

First 3 Months Practical Assignments

1. Data Cleaning Assignment Students clean messy CSV/Excel data by handling missing values, duplicates, inconsistent columns, wrong data types and basic text/date issues.	2. EDA and Visualization Report Students create an exploratory analysis report with charts, comparisons, trends, summary observations and written insights.
3. SQL + Pandas Analysis Task Students answer business/data questions using SQL queries and Pandas operations such as filtering, grouping, sorting and summarizing.	4. Machine Learning Starter Assignment Students practice a basic regression or classification workflow with train-test split, prediction and simple evaluation.

Next 3 Months: Major Capstone Project with GitHub Documentation

The last 3 months of the 6-month Data Science training are focused on a guided capstone project. Students apply Python, Pandas, SQL, visualization, Machine Learning, debugging and project documentation in a complete workflow.

Major Capstone Project Work Includes

- Project idea discussion
- Problem statement selection
- Dataset understanding
- Data cleaning and preparation
- EDA and visualization report
- SQL or Pandas-based analysis questions
- Machine Learning model workflow, if suitable
- Model evaluation and interpretation
- Project folder structure
- GitHub repository setup
- README file writing
- Insight document and presentation
- Project explanation practice
- Interview discussion preparation

Expected Capstone Outcomes

Clean Dataset Students prepare an analysis-ready dataset and document what cleaning steps were performed.	EDA Report Students create charts, summary observations and insights based on the selected dataset.
ML Workflow Students build a suitable basic model or analysis workflow depending on project scope and readiness.	GitHub Documentation Students upload project files, notebooks, README documentation and project explanation notes.

Major Project and Portfolio Options

Students may work on a project based on selected batch, dataset availability and readiness. The goal is to create one complete portfolio-ready Data Science project, not disconnected tool practice.

Student Admission Prediction / Analysis	Analyze enquiries, admissions, course performance, student background and trends.
Sales Data Science Project	Analyze revenue trends, products, cities, growth and prediction opportunities.
Customer Churn Analysis	Understand customer behavior, churn indicators and retention insights.
HR Employee Analysis	Analyze attrition, salary, departments, experience and employee trends.
Marketing Campaign Analysis	Analyze campaign leads, conversion, cost, channel quality and performance improvement.

Major Project Deliverables

- Clean dataset
- Jupyter Notebook or Python files
- EDA report
- SQL/Pandas analysis notes
- Visualization report
- Machine Learning workflow, if suitable
- Insight document
- Presentation file
- GitHub README and documentation

Tools Students May Use

Programming	Python for data handling, analysis and project workflow
Data Libraries	Pandas, NumPy and basic visualization libraries
Database	SQL / MySQL basics for querying and analysis tasks
Notebook	Jupyter Notebook or VS Code notebook workflow
Visualization	Matplotlib / Seaborn style charts and reporting visuals
Documentation	GitHub, README files, project folders, insight documents and presentations

Practical Learning Focus

- Understanding a data problem before using tools
- Cleaning messy datasets
- Using Python/Pandas for analysis
- Writing SQL queries for analysis questions
- Creating EDA and visualization reports
- Building basic ML workflows
- Documenting projects on GitHub
- Explaining project decisions and insights clearly

Certificate, Internship and Career Direction

Certificate Support	Training completion certificate support may be available as per selected program, attendance, assignments and completion criteria.
Internship Training	Internship training or internship-style project exposure may be available with the 6 Months Data Science Pro Track depending on selected program, attendance, project work and academy process.
Documentation	Students should confirm certificate and internship letter details during counselling before admission.

Career Direction After Data Science Training

- Data Science beginner path
- Data analysis and reporting foundation
- Python/Pandas data handling path
- Machine Learning foundation
- SQL and data project portfolio path
- Internship or fresher-level project preparation

Important Note

Zestminds Academy does not promise guaranteed jobs or salaries. The training supports practical learning, project work, GitHub presentation, interview preparation and career guidance. Final results depend on student practice, skill level, project quality, communication and interview performance.

Book Counselling	Call or WhatsApp +91-9056277961
Visit	Zestminds Academy, E-45, Industrial Area, Phase 8, Mohali
Best Next Step	Compare 45 Days, 3 Months and 6 Months tracks with a training counsellor before admission.