

STUDY PLAN

Week	Date	Session Type	Session	Duration(hrs)	Session Title	Session Topics											
Week 0	30-May-2026	Founder's Session															
	31-May-2026	Orientation Session															
Week 1		Recorded Sessions	Rec- Session 1	1.5	Prerequisite	<p>Video 1: Intro to MS Excel Topics : Role of Excel in Data Analytics Excel interface and navigation</p> <p>Video 2: Data types Topics: Text, Number, Date, Boolean</p> <p>Video 3: Excel Formatting basics Topics: cell styles, number formats</p> <p>Video 4: Introduction to tables</p> <p>Video 5: Rule-based formatting Topics: greater than, top 10%, duplicates Color scales, data bars, icon sets Custom formula-based formatting</p> <p>Video 6: Basic Charts Topics: Column, Bar, Line, Pie Combination charts and formatting options Choosing the right chart for data type</p>	Video Link	Self Paced Agenda for Excel	Notes 1	Quiz 1	W-1 Assignment						
	6-June-2026	Live Session	Session 1	3	Introduction to Data Analysis with Excel Excel Functions (Basic to Intermediate)	<p>Text: LEFT, RIGHT, MID, LEN, TRIM, UPPER, LOWER, CONCAT, TEXTJOIN</p> <p>Sorting & Filtering data</p> <p>Logical: IF, IFS, AND, OR, NOT</p> <p>Date: TODAY, NOW, DATE, EDATE, DATEDIF, NETWORKDAYS</p>											

						Math/Stat: SUM, AVERAGE, COUNT, COUNTA, ROUND, INT, MOD														
	7-June-2026	Live Session	Session 2	3	Lookups and Pivot Tables	VLOOKUP, HLOOKUP, Xlookup - their comparisons Creating Pivot Tables from structured data Row, Column, Filter, Values fields Summarization techniques (Sum, Count, Average) Grouping (dates, numbers) Sorting and filtering in Pivots Drill-down features														
	9-June-2026	DC + Focus	Practice Set/assignment for supporting Mini Project	3																
Week 2		Recorded Session	Rec- Session 3	2.5	Prerequisite	<p>Video 1: Handling errors with IFERROR</p> <p>Video 2: Approximate match and wildcard match</p> <p>Video 3: Comparison with VLOOKUP, INDEX-MATCH</p> <p>Video 4: Two-way lookup use cases</p> <p>Topics: Use cases: sales, employee performance, stock movement Advanced summarization using nested formulas with Pivots</p> <p>Video 5: Introduction to Power Query (basic transformations)</p> <p>Video 6: Creating dynamic ranges with Excel Tables</p> <p>Video 7: Layout, color schemes, interactivity</p> <p>Video 8: Dashboard design do's and don'ts</p> <p>Video 9: Recap of key functions and features</p>														

	11-July-2026	Live Session	Session 3	3	Corss Sheet Lookups - Data Cleaning Techniques	<ul style="list-style-type: none"> Combining XLOOKUP with Pivot Table summaries Building cross-sheet dynamic reports Using XLOOKUP inside calculated fields Identifying and removing duplicates Detecting and handling blanks, nulls TRIM, CLEAN, SUBSTITUTE for cleanup Data validation for drop-downs and checks Text to Columns, Flash Fill 												
	12-July-2026	Live Session	Session 4	3	End To End Excel Project - Dashboard Building	<ul style="list-style-type: none"> End to End Excel Project - End-to-end project: Clean raw data Apply transformations Use lookups Summarize using Pivots Linking Pivot Charts to Pivot Tables Using Slicers and Timelines, KPI Cards Present with dashboard 												
	14-July-2026	DC + Focus	Practice Set/assignment for supporting Mini Project	3														
Week 3		Rec- Session 3	Rec- Session 4	2	Google Sheet for Data Analysis	<ul style="list-style-type: none"> Transitioning from Excel Reference Logic & Operations Data Cleaning & Text Wrangling Summary Stats & Conditional Logic Advanced Lookups & Power Tools 	Google Sheets for Data Analysis											
Week 3		Generative AI Masterclass	MC 1	3	Prompt Engineering for Analytics	<ul style="list-style-type: none"> The Art of Prompting Business questions formulation Using AI in Excel work Checking and improving AI answers Explaining insights clearly 												

	18-July-2026	Live Session	Mini Project Discussion	3															
	21-July-2026	DC + Focus	<i>Doubt Clarification about Prompt Exercises, One small project Hands on with trainer on Gen AI + Excel (Ideally GPT/Copilot)" + Mini Project Submission</i>	3															
Module 2 : SQL (33 Hr)																			
Week		Session Type	Session	Duration(hrs)	Session Title	Session Topics													
Week 4		Recorded Sessions	Rec- Session 4	1	Prerequisite	<p>Video 1: Installing MySQL or SQLite Topics: INT, FLOAT, CHAR, VARCHAR, DATE</p> <p>Video 2: Intro to DBMS Topics: What is a DBMS and how it differs from a file system RDBMS vs NoSQL (brief mention for contrast)</p> <p>Video 3: Codd's 12 Rules Topics: Codd's 12 Rules and their significance</p> <p>Video 4: Relational Models and Normalization Topics: Real-world examples of relational models Importance of normalization principles</p> <p>Video 5 : Concept of Keys Primary Key, Composite Key, Foreign Key, Candidate Key Surrogate Key, Natural Key</p>													

	25-July-2026	Live Session	Session 1	3	DBMS Concepts	<p>Introduction to SQL for Data Analytics</p> <p>SQL Language Categories: DDL, DML, DCL, TCL</p> <p>Common SQL syntax and structure</p> <p>Creating a database</p> <p>Creating tables with CREATE TABLE</p> <p>Altering tables using ALTER TABLE</p> <p>Dropping and renaming columns</p>												
	26-July-2026	Live Session	Session 2	3	Constraints in SQL Dropping, Truncating & Modifying Tables	<p>NOT NULL, UNIQUE, PRIMARY KEY, FOREIGN KEY, CHECK</p> <p>Default values and AUTO_INCREMENT</p> <p>Column-level vs table-level constraint declaration</p> <p>Modifying constraints</p> <p>Difference between DROP, TRUNCATE, DELETE</p> <p>Impact on storage, rollback, and auto-increment counters</p> <p>Modifying column names, data types</p> <p>Adding/removing columns using ALTER TABLE</p> <p>Renaming tables</p> <p>INSERT single and multiple records</p>												
	28-July-2026	DC + Focus		3		SQL Lab/Excel Lab												
Week 5	1-August-2026	Live Session	Session 3	3	Aggregation and Group by	<p>SELECT basics with column filtering</p> <p>WHERE clause and logical operators</p> <p>UPDATE and DELETE commands</p> <p>Using DISTINCT, ORDER BY, LIMIT, Group by</p> <p>Aggregate functions: COUNT, SUM, AVG, MIN, MAX</p> <p>GROUP BY and HAVING</p>												

	2-August-2026	Live Session	Session 4	3	SQL Joins	INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL OUTER JOIN Self JOIN, CROSS JOIN Understanding primary-foreign key relationships Joining more than two tables NULL handling in joins Windows Functions - row_number(), rank(), dense_rank(), lag(), lead()														
	4-August-2026	DC + Focus		3																
Week 6	8-August-2026	Live Session	Session 5	3	Windows Functions, Views and Import/Export of Data	Windows Functions - row_number(), rank(), dense_rank(), lag(), lead() Views: creation, use cases, and limitations Connecting SQL databases to Excel / Python / Power BI Running SQL queries from external tools Exporting and importing data via CSV														
	9-August-2026	Live Session	Session 6	3	Subqueries,CTEs and EDA	Nested queries and subqueries CASE statements Common Table Expressions(CTEs) Using simple dashboards to display query results Use case: exploratory data analysis with SQL														
	11-August-2026	DC + Focus	DC + SQL Scriptwriting Practice	3		SQL Script Writing Practice Session														
Week 7		Gen AI Masterclass	MC 2	3	MC-2: NL-to-SQL + Query Optimization with AI	Industry context and SQL interview expectations Natural language to structured SQL translation Identifying joins, filters, aggregations from business questions														

						<p>Query optimization fundamentals and performance improvement</p> <p>AI-assisted SQL drafting, refactoring, and validation</p>													
	15-August-2026	Live Session	Mini Project Discussion	3		MINI PROJECT DISCUSSION													
	18-August-2026	DC + Focus	Gen AI Practice + Doubt + Project submission	3															
Module 3 : Statistics - 1 (9 Hr)																			
Week		Session Type	Session	Duration(hrs)	Session Title	Session Topics													
Week 8		Recorded Sessions	Rec- Session 5	1.5	Prerequisite	<p>Video 1: Intro to Statistics Topics: What is statistics: Descriptive vs Inferential</p> <p>Video 2: Types of Data Topics: Types of data: Qualitative vs Quantitative</p> <p>Video 3: Scales of measurement Topics: Scales of measurement: Nominal, Ordinal, Interval, Ratio Population vs Sample</p> <p>Video 4: Sampling methods Topics: Sampling methods: Random, Stratified, Cluster, Systematic</p> <p>Video 5: Data sources Topics: Surveys, Experiments, Observational studies</p> <p>Video 6: Biases in data collection</p>													
Week 8	22-August-2026	Live Session	Session 1	3	Measures of Central Tendency and Measures of Dispersion (using Excel ideally with business problems)	<p>Mean (Arithmetic, Weighted) Median Mode</p> <p>When to use which measure Impact of outliers on central tendency Practice with real datasets (e.g., salary, sales)</p> <p>Range</p>													

						Variance & Standard Deviation (sample vs population) Mean Absolute Deviation Coefficient of Variation Use of dispersion in comparing datasets												
	23-August-2026	Live Session	Session 2	3	Descriptive Statistics & Forecasting in Excel (Analysis ToolPak Applications)	Using Analysis ToolPak for summary statistics & regression output Data distribution analysis (Histogram & normality check) Time series forecasting using Excel Forecast tools Business interpretation of statistical outputs												
	25-August-2026	DC + Focus		3														
ET 1 (After DC Class From the coming Sat to next Friday ET window is open) (Week 9)																		
Module 4 : PowerBI (24 hr) + Tableau (Pre Recorded)																		
Week		Session Type	Session	Duration(hrs)	Session Title	Session Topics												
Week 10		Recorded Sessions	Rec- Session 6	1.5	Prerequisite	Video 1: Definition of Business Intelligence Topics: Definition of Business Intelligence and its industry applications Video 2: Types of BI tools Topics: Types of BI tools and landscape overview Video 3: Installing Power BI Desktop Video 4: Overview of Power BI interface Topics: Overview of Power BI interface: ribbons, panes, canvas Video 5: Workflow overview Topics:												

						<p>Workflow overview: data, model, report views</p> <p>Video 6: PowerBI with Excel</p> <p>Connecting to Excel, CSV, Web, and SQL sources</p> <p>Import vs Direct Query vs Live connection</p>												
29-August-2026	Live Session	Session 1	3	Power Query Editor	<p>Navigating the Power Query Editor</p> <p>Transforming data types, trimming, replacing, splitting</p> <p>Steps applied, query folding and refresh</p> <p>Understanding measures vs dimensions</p> <p>Discrete vs continuous fields</p> <p>Data shaping: renaming, removing, pivoting, unpivoting columns</p> <p>Transforming data types, trimming, replacing, splitting</p> <p>Creating relationships, understanding cardinality and cross-filter direction</p>													
30-August-2026	Live Session	Session 2	3	DAX Fundamentals, DAX modelling and DAX Operations	<p>Star vs Snowflake schema</p> <p>Role of fact and dimension tables</p> <p>Introduction to DAX: syntax and use cases</p> <p>Calculated columns vs measures</p> <p>Basic DAX functions: SUM, AVERAGE, COUNT, DISTINCTCOUNT</p> <p>Working with filters in DAX: CALCULATE, FILTER, ALL</p> <p>Logical and text functions in DAX</p> <p>Conditional expressions using IF and SWITCH</p>													
1-September-2026	DC + Focus		3															

Week 11	5-September-2026	Live Session	Session 3	3	DAX Operations Visualizations & Interactions	<ul style="list-style-type: none"> Row context vs filter context explained Error handling and debugging DAX expressions Using core visuals: bar, line, pie, scatter, table, matrix Customizing visuals: formatting, themes, tooltips Setting up slicers and filters Drill-through and drill-down navigation Cross-highlighting and interactivity between visuals 												
	6-September-2026	Live Session	Session 4	3	Advanced Measures & Time Intelligence Reports, Bookmarks, Tooltips & Navigation,	<ul style="list-style-type: none"> Cumulative totals and running totals YOY, MOM comparisons DATEADD, DATESYTD, SAMEPERIODLASTYEAR Using CALCULATE with time intelligence Date table creation and relationships Creating multi-page reports Adding bookmarks for storytelling and dynamic views Using buttons and images for navigation. Custom tooltips and drill-through pages Setting up page navigation and back buttons 												
	8-September-2026	DC + Focus		3														
Week 12	12-September-2026	Live Session	Mini Project Discussion	3	Mini Project Discussion Publishing, Sharing & Deployment	<ul style="list-style-type: none"> Publishing reports to Power BI Service Creating and managing workspaces Setting refresh schedules and gateway setup Sharing reports with stakeholders Row-level security and access control basics 	Mini Project Lab											

	13-September-2026	Gen AI Masterclass	MC 3	3	MC-3: AI-Enhanced Dashboarding + Automated Insights	<p>Using AI to design KPI-driven dashboards</p> <p>Generating DAX measures with AI support</p> <p>Automating insight summaries from visuals</p> <p>Identifying trends and anomalies using AI</p> <p>Improving dashboard storytelling and clarity</p>												
	15-September-2026	DC + Focus	Genai + Doubts	3														
		Rec- Session 6	1	Introduction to Tableau	Introduction to Tableau, Installation & Interface Navigation Connecting to Data Sources Building Basic Charts													
		Rec- Session 7	1	Basic & Advanced Charts & Highlighting	Building Basic Charts Advanced Chart Types and Highlighting Techniques													
		Rec - Session 8	1	Maps, Time Series, Dashboards	Geospatial Charts and Time-Series Visuals Dashboards, Filters and User Interactivity													
		Rec - Session 9	1	Filters, Joins, Blends, Calculations	Filtering Logic, Joins, Blends and Calculations	Need to give small dashboard as Assignment	Two Dashboards in Class + One as Assignmnet (Non Graded)											

Module 5 : Python (42 hours)												
Week		Session Type	Session	Duration(hrs)	Session Title	Session Topics						
		Recorded Sessions	Rec- Session 6	1.5	Prerequisite	<p>Video 1: Intro to Programming Languages and Python Topics: Definition of Programming Languages Why we need Programming Languages Introduction to Python Python Syntax Data Types Variables</p> <p>Video 2: Type Casting, Conversion and I/O Functions Topics: How Python is different from other languages (Dynamically Typed) Type Casting and Type Conversion Implicit and Explicit Type Conversion Input and Output Functions Overview of Concatenation</p> <p>Video 3: F-Strings Method (Part 1 & Part 2) Topics: Introduction to F-Strings F-Strings Syntax and Examples String Formatting using F-Strings</p> <p>Video 4: Deep Dive into F-Strings and Code Structure Topics: Advanced F-String Usage Creating a Calculator using Python Indentation in Python Block of Code Concept</p> <p>Video 5: Inbuilt Functions, Lists and List Functions Topics:</p>	<p>Video 1 - Intro to Python, Datatypes, Variables, Typecasting, input function</p> <p>Video 2 - Fstring, Inbuilt Python Functions, List Functions</p>	<p>Videos to subvideos</p>				

						Common Inbuilt Functions (len, max, min, sum, sorted, round, abs) Introduction to Lists List Functions (append, extend, insert, remove, pop)												
Week 13	19-September-2026	Live Session	Session 1	3	Python Intro & Control Structures	Intro to Python Coding Environment with Jupyter Notebooks How to write effective code in Python if, elif, else statements Nested conditions												
	20-September-2026	Live Session	Session 2	3	Python Intro & Control Structures Part 2	for loops with range() while loops and loop control: break, continue, pass else clause with loops												
	22-September-2026	DC + Focus		3														
		Recorded Sessions	Rec- Session 6	1.5	Prerequisite	Video 1: File Handling & Types of Files in Python Topics: Introduction to File Handling in Python Types of Files (.txt, .csv, .json) File Modes Read Method Write Method Append Method Video 2: CSV & JSON File Handling Topics: Working with CSV Files CSV Functions (writer, writerow, reader) Working with JSON Files JSON Functions (dump, load, append) Video 3: Exception & Error Handling in Python Topics: What is Exception Handling Importance of Exception Handling	Video 3 - File Handling Video 4 - Exception Handling Video 5 - Inbuilt Modules in Python	Videos to subvideos										

						<p>Try Block Except Block Else Block Finally Block</p> <p>Types of Errors and Exceptions ValueError FileNotFoundError Other Common Exceptions</p> <p>Video 4: Python Inbuilt Modules & Module Functions Topics: Introduction to Python Modules Math Module (sqrt, pow, pi, factorial) Random Module (random, randint, uniform, sample, randrange) Datetime Module (now, today, now().date, now().time) Timezone Module Overview Using dir() Function to Explore Module Functions</p>												
Week 14	26-September-2026	Live Session	Session 3	3	Data Structures in Python	<p>Creating, accessing, slicing lists List comprehension Tuples: declaration, immutability, use cases Tuple unpacking and zip() basics string methods and tuple methods Creating sets, uniqueness in keyword and set membership add(), remove(), discard() Use cases in de-duplication</p>												
	27-September-2026	Live Session	Session 4	3	Data Structures in Python Part 2	<p>Set operations: union(), intersection(), difference(), symmetric_difference() Creating and accessing key-value pairs get(), items(), keys(), values() Updating and deleting entries in operator, nested dictionaries Dictionary comprehension (basic intro)</p>												
	29-September-2026	DC + Focus		3														

Week 15	3-October-2026	Live Session	Session 5	3	Data Manipulation with Numpy Arrays	<p>What is NumPy & why use it</p> <p>Creating arrays: array(), zeros(), ones(), arange(), linspace()</p> <p>Array properties: shape, ndim, dtype</p> <p>Basic element-wise operations: +, -, *, /</p> <p>Aggregation: sum(), mean(), std()</p> <p>Creating Series from lists, dictionaries</p> <p>Indexing, slicing, vector-style operations</p>													
	4-October-2026	Live Session	Session 6	3	Creating and Accessing DataFrame using Pandas	<p>Creating DataFrames from dict, list of dicts, CSV</p> <p>head(), tail(), info(), describe()</p> <p>Selecting data: loc[], iloc[]</p> <p>Adding/removing columns</p> <p>Filtering rows with conditions</p> <p>Renaming columns, updating values</p> <p>Sorting by column(s)</p> <p>Handling missing data: isnull(), dropna(), fillna()</p>													
	6-October-2026	DC + Focus		3															
Week 16	10-October-2026	Live Session	Session 7	3	Pandas Groupby and Sorting	<p>groupby() with mean(), sum(), count()</p> <p>Using agg() for multi-aggregation</p> <p>Multi-index results</p> <p>Pivot tables with pivot_table()</p> <p>Merging/joining DataFrames</p> <p>Load & explore dataset</p> <p>Clean missing and inconsistent data</p> <p>Derive new columns</p> <p>Use groupby(), filtering, sorting</p> <p>Visualize insights using Pandas .plot()</p> <p>Save cleaned & visualized outputs</p>													
	11-October-2026	Live Session	Session 8	3	Plotting with Matplotlib	<p>Line plot, bar chart, histogram, pie chart using Pandas .plot()</p> <p>Customizing plots: labels, titles, colors</p>													

						Plotting directly from groupby results Intro to matplotlib.pyplot: plot(), bar(), scatter() Styling and subplot basics												
	13-October-2026	DC + Focus		3														
Week 17	17-October-2026	Live Session	Mini Project Discussion	3	EDA with Pandas + Numpy +Seaborn	Visualization using Seaborn library, variety of charts. Lambda Functions User Defined Functions Reshaping Data Date and Time Handling Exporting Data EDA Project												
		Gen AI Masterclass	MC 4	3	MC-4 : AI-Assisted Python Code Generation & Debugging	Writing Python scripts using AI assistance Debugging errors with structured AI prompts Optimizing data manipulation logic (Pandas/Numpy) Improving code readability and documentation Validating AI-generated code outputs	Using Google Collab and with Genai integration											
	20-October-2026	DC + Focus		3														
Module 6 :Statistics and EDA - 2 (24 hr)																		
Week		Session Type	Session	Duration(hrs)	Session Title	Session Topics												
Week 18	24-October-2026	Live Session	Session 1	3	Percentiles, Quartiles, and IQR Univariate Analysis	Percentiles and interpretation (e.g., 90th percentile) Quartiles: Q1, Q2 (median), Q3 Interquartile Range (IQR) Box plot interpretation Outlier detection using IQR Histogram, Bar chart, Pie chart Frequency distribution tables KDE (Kernel Density Estimation) plot												

	25-October-2026	Live Session	Session 2	3	Understanding Patterns and Relationship using Univariate, Bivariate, Multivariate Analysis	Basic Bivariate analysis Bivariate Analysis Implementation Pearson's correlation & covariance Rank Correlation Correlation & Causation													
	27-October-2026	DC + Focus		3															
Week 19	31-October-2026	Live Session	Session 3	3	Probability & Distributions	Basics of probability: Classical, Empirical Complementary, Joint, and Conditional probability Discrete distributions: Binomial Continuous distributions: Normal distribution Central Limit Theorem (basic concept)													
	1-November-2026	Live Session	Session 4	3	Hypothesis Testing – Foundations	Population vs sample recap Concept of hypothesis: Null vs Alternative One-tailed vs Two-tailed test Type I and Type II errors p-value concept Confidence Intervals (basic interpretation) t-test: One-sample, Two-sample Z-test basics Chi-square test (intro) for independence Hands-on: Interpret test results using Python/Excel output Decision-making from statistical tests													
	3-November-2026	DC + Focus		3															
Week 20		Gen AI Masterclass	MC 5	3	AI-Powered EDA & Statistical Storytelling	AI-assisted exploratory data analysis (EDA) Generating summary statistics and visual insights Identifying patterns, correlations, and anomalies													

						Automating statistical interpretation													
						Converting analysis into structured data stories													
	7-November-2026	Live Session	Mini Project Discussion	3	Mini Project Discussion	EDA Project (EDA Assignment with GEN AI included)	Note : No DC session, rather ask learners to watch pre-recorded Tableau videos during weekdays												
	10-November-2026	DC + Focus		3		EDA Assignment Review	Assignment												
ET 2 (Week 21)																			
Module 7: Project Work																			
Week		Session Type	Session	Duration(hrs)	Session Title	Session Topics	Self Paced Links												
Week 22	14-November-2026	Live Session		3		Capstone Project Building Session													
Week 23	15-November-2026	Live Session		1.5		Capstone Project Doubts													
Week 24	21-November-2026	Live Session		1.5		Capstone Project Doubts													