

STUDY PLAN

Module 1 : Excel (27 Hr)															
Week	Date	Session Type	Session	Duration (hrs)	Session Title	Session Topics	Self Paced Links	Agenda	Notes	Quiz	Weekly Assignment	Mini Project	Content received	Content Released	Raw Videos
		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				
Week 1	4-July-2026	Live Session	Session 1	3	Introduction to Data Analysis with Excel Excel Functions (Basic to Intermediate)	Text: LEFT, RIGHT, MID, LEN, TRIM, UPPER, LOWER, CONCAT, TEXTJOIN Sorting & Filtering data Logical: IF, IFS, AND, OR, NOT Date: TODAY, NOW, DATE, EDATE, DATEDIF, NETWORKDAYS Math/Stat: SUM, AVERAGE, COUNT, COUNTA, ROUND, INT, MOD		Agenda 1 - Doc link Live Session 1 - Trainer Delivery Guide	Notes 2	Quiz 2		Week 01 Mini Project	Y	Y	

	5-July-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		Agenda 2 - Doc Link Live Session 2 - Trainer Delivery Guide	Quiz 3									
	7-July-2026	DC + Focus	Practice Set/assignment for supporting Mini Project	3		Lab												
		Recorded Session	Rec- Session 2	2.5	Prerequisite	Video 1: Handling errors with IFERROR Video 2: Approximate match and wildcard match Video 3: Comparison with VLOOKUP, INDEX-MATCH Video 4 : Two-way lookup use cases Topics: Use cases: sales, employee performance, stock movement Advanced summarization using nested formulas with Pivots Video 5: Introduction to Power Query (basic transformations) Video 6: Creating dynamic ranges with Excel Tables Video 7: Layout, color schemes, interactivity Video 8: Dashboard design do's and don'ts Video 9: Recap of key functions and features												

Week 2	11-July-2026	Live Session	Session 3	3	Corss Sheet Lookups - Data Cleaning Techniques	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	Agenda 3 - Doc Link Live Session 3 - Trainer Delivery Guide												
	12-July-2026	Live Session	Session 4	3	End To End Excel Project - Dashboard Building	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	Agenda 4 - Session Link Live Session 4 - Trainer Delivery Guide												
	14-July-2026	DC + Focus	Practice Set/assignment for supporting Mini Project	3		Lab													
Week 3		Recorded Session	Rec- Session 3	2	Google Sheet for Data Analysis	Transitioning from Excel Reference Logic & Operations Data Cleaning & Text Wrangling Summary Stats & Conditional Logic Advanced Lookups & Power Tools	Google Sheets for Data Analysis												
		Generative AI Masterclass	MC 1	3	Prompt Engineering for Analytics	The Art of Prompting Business questions formulation Using AI in Excel work Checking and improving AI answers Explaining insights clearly	Generative AI Masterclass (MC-1)												

18-July-2026	Live Session	Mini Project Discussion	3		Lab										
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	Self Paced Links	Agenda	Notes	Quiz	Weekly Assignment	Mini Project	Content received	Content Released	Raw Videos
Week 4	Recorded Sessions	Rec- Session 3	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>									
	Live Session	Session 1	3	DBMS Concepts	Introduction to SQL for Data Analytics SQL Language Categories: DDL, DML, DCL, TCL Common SQL syntax and structure Creating a database							Y	Y	

					<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	<p>Constraints in SQL</p> <p>Dropping, Truncating & Modifying Tables</p> <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	<p>Aggregation and Group by</p> <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	<p>SQL Joins</p> <p>INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL OUTER JOIN</p> <p>Self JOIN, CROSS JOIN</p> <p>Understanding primary-foreign key relationships</p> <p>Joining more than two tables</p> <p>NULL handling in joins</p> <p>Windows Functions - row_number(), rank(), dense_rank(), lag(), lead()</p>													
	4-August-2026	DC + Focus		3	Lab													Y

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 Query optimization fundamentals and performance improvement AI-assisted SQL drafting, refactoring, and validation												
	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	Self Paced Links	Agenda	Notes	Quiz	Weekly Assignment	Mini Project	Content received	Content Released	Raw Videos	
Week 8	Recorded Sessions	Rec- Session 4	1.5	Prerequisite	<p>Video 1: Introduction to Statistics What is statistics Business Case study of use of Statistics Type of Statistics</p> <p>Video 2: Descriptive vs Inferential Statistics Descriptive statistics: mean, median, charts Inferential statistics: predictions from samples "What data shows" vs "What we conclude"</p> <p>Video 3: Types of Data and Scales Types of data: Qualitative vs Quantitative Scales of measurement: Nominal, Ordinal, Interval, Ratio</p> <p>Video 4: Population and Sample Population vs Sample Sampling methods: Random, Stratified, Cluster, Systematic Data sources: Surveys, Experiments, Observational studies Biases in data collection</p> <p>Video 5: Probability Probability concepts Likelihood 0 to 1 Basic formula: favorable ÷ total outcomes</p>										
	22-August-2026	Live Session	Session 1	3	Measures of Central Tendency and Measures of Dispersion (using Excel ideally with business problems)	Mean (Arithmetic, Weighted) Median Mode When to use which measure Impact of outliers on central tendency Practice with real datasets (e.g., salary, sales) Range									

						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		Lab										

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	Self Paced Links	Agenda	Notes	Quiz	Weekly Assignment	Mini Project	Content received	Content Released	Raw Videos
Week 10	Recorded Sessions	Rec- Session 5	1.5	Prerequisite	<p>Video 1: Definition of Business Intelligence Topics: Definition of Business Intelligence and its industry applications</p> <p>Video 2: Types of BI tools Topics: Types of BI tools and landscape overview</p> <p>Video 3: Installing Power BI Desktop</p> <p>Video 4: Overview of Power BI interface Topics: Overview of Power BI interface: ribbons, panes, canvas</p> <p>Video 5: Power BI Workflow Overview Topics: Workflow overview: data, model, report views</p> <p>Video 6: Power BI Dashboard Design Fundamentals</p>									

						Creating KPI Visuals and Business Reports Dashboard Interactivity and Insights												
	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		Lab												
Week 11	5- September-2026	Live Session	Session 3	3	DAX Operations Visualizations & Interactions	<p>Row context vs filter context explained</p> <p>Error handling and debugging DAX expressions</p> <p>Using core visuals: bar, line, pie, scatter, table, matrix</p> <p>Customizing visuals: formatting, themes, tooltips</p> <p>Setting up slicers and filters</p> <p>Drill-through and drill-down navigation</p> <p>Cross-highlighting and interactivity between visuals</p>							Y					

					Setting refresh schedules and gateway setup Sharing reports with stakeholders Row-level security and access control basics										
	Gen AI Masterclass	MC 3	3	MC-3: AI-Enhanced Dashboarding + Automated Insights	Using AI to design KPI-driven dashboards Generating DAX measures with AI support Automating insight summaries from visuals Identifying trends and anomalies using AI Improving dashboard storytelling and clarity										
15-September-2026	DC + Focus	Genai + Doubts	3												

Module 5 : Python (42 hours)

Week	Session Type	Session	Duration (hrs)	Session Title	Session Topics	Self Paced Links	Agenda	Notes	Quiz	Weekly Assignment	Mini Project	Content received	Content Released	Raw Videos
	Recorded Sessions	Rec- Session 5	1.5	Prerequisite	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 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	Video 1 - Intro to Python, Datatypes, Variables, Typecasting, input function Video 2 - FString, Inbuilt Python Functions, List Functions	Videos to subvideos							

	27-September-2026	Live Session	Session 4	3	Data Structures in Python Part 2	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)												
	29-September-2026	DC + Focus		3		Lab 2												
Week 15	3-October-2026	Live Session	Session 5	3	Data Manipulation with Numpy Arrays	What is NumPy & why use it Creating arrays: array(), zeros(), ones(), arange(), linspace() Array properties: shape, ndim, dtype Basic element-wise operations: +, -, *, / Aggregation: sum(), mean(), std() Creating Series from lists, dictionaries Indexing, slicing, vector-style operations							Y		Y			https://drive.google.com/drive/folders/11_RB2p76mNwn2au5t16hXMc0l3Ee9axH?usp=drive_link
	4-October-2026	Live Session	Session 6	3	Creating and Accessing DataFrame using Pandas	Creating DataFrames from dict, list of dicts, CSV head(), tail(), info(), describe() Selecting data: loc[], iloc[] Adding/removing columns Filtering rows with conditions Renaming columns, updating values Sorting by column(s) Handling missing data: isnull(), dropna(), fillna()												
	6-October-2026	DC + Focus		3		Lab 3												
Week 16	10-October-2026	Live Session	Session 7	3	Pandas Groupby and Sorting	groupby() with mean(), sum(), count() Using agg() for multi-aggregation Multi-index results Pivot tables with pivot_table() Merging/joining DataFrames Load & explore dataset							Y		Y			https://drive.google.com/drive/folders/1620z6vLArxOwr1Frv_Y1jQ4wFRabMmgg?usp=drive_link https://drive.google.com/drive/folders/1pUQB0a2fNwi7enKLhbC

						Clean missing and inconsistent data Derive new columns Use groupby(), filtering, sorting Visualize insights using Pandas .plot() Save cleaned & visualized outputs												7f4XH31VEkigs?usp=drive_link
	11-October-2026	Live Session	Session 8	3	Plotting with Matplotlib	Line plot, bar chart, histogram, pie chart using Pandas .plot() Customizing plots: labels, titles, colors Plotting directly from groupby results Intro to matplotlib.pyplot: plot(), bar(), scatter() Styling and subplot basics												
	13-October-2026	DC + Focus		3		Lab 4												
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	EDA project here is the main mini project here Mini Project Discussion						Y		Y			
		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	Duratio n(hrs)	Session Title	Session Topics	Self Paced Links	Agenda	Notes	Quiz	Weekly Assignment	Mini Project	Content received	Content Released	Raw Videos
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							Y	Y	
	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		Lab1+Lab2	https://drive.google.com/drive/folders/1lzfBQGL3hrvaSXQC_mvC-1bQn6yqDTxi?usp=drive_link https://drive.google.com/drive/folders/1AKZIA2LFdvE5b536sc-CgWIK5VhT965b?usp=drive_link								
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							Y	Y	

						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		Lab 3						Mini Project - Customer Insights Statistical Investigation	Y	Y			
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 (After the EDA Assignment Discussion class on Mid Week - ET will be announced and no classes will happen that weekend, and the next weekend will be the next class) (Week 22)																	
Module 7: Project Work																	
Week	Session Type	Session	Duratio n(hrs)	Session Title	Session Topics	Self Paced Links	Agenda	Notes	Quiz	Weekly Assignment	Mini Project	Content received	Content Released	Raw Videos			
						Note: MC-6: GenAI for Career Readiness — Resume, LinkedIn, Portfolio is not planned here as these things are already covered in Soft skills section.											

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	17-November-2026	Live Session		1.5		Capstone Project Doubts												
Week			Session Type	Session	Duration(hrs)	Session Title	Session Topics	Self Paced Links										
Week 22	21-November-2026		Live Session		3		Capstone Project Building Session											
Week 23	22-November-2026		Live Session		1.5		Capstone Project Doubts											
Week 24	24-November-2026		Live Session		1.5		Capstone Project Doubts											
Week 24	28-November-2026		Live Session		1.5		Capstone Project Doubts											