

## BSE Certificate Program on Data Analytics

**Total Duration (in hrs)**

**50 Hour**

<b>Excel Block</b>		
Sr No	Topic	Sub Topics
1	Excel Fundamental	Excel Qucik Tips and Tracks - a. Conditional Sum and Formatting b. Creating Drop Down c. Excel In-built Functions like DATE, TEXT, LEFT, RIGHT etc
2	Key Excel In built functions for Grouping Data	SUMIF (and SUMIFS, SUMPRODUCT, SUBTOTATL), VLOOKUP, IF and other important functions to perform descriptive analytics and Cross Tablulation
3	Excel Pivot	Creating Pivot and perform Descriptive Analytics Create Pivot Graphs
4	Excel Analysis Tool Pack	1. Data Analysis -> Descriptive Statistics, Correlation and Covariance 2. Solver
5	Getting External Data inside	1. From Web Pages - www.nseindia.com 2. From Other ODBC connections like Database
<b>Total</b>		<b>18 Hour</b>
<b>MySQL Block</b>		
1	MySQL for Windows Machine	1. Installation of MySQL workbench 2. Getting Started. RDBMS, Schema, Roles, Management Console 3. Getting sample Database schema to be restored into MySQL
2	SQL Fundamental	1. SELECT statement with WHERE, ORDER BY, not null and other conditional statement 2. CREATE statement to create a table with specific field characters. Use CREATE to build a table from other Table 3. UPDATE statement with conditions 4. INSERT INTO statement with conditions and partial filling
3	Advanced SQL	5. CASE statement 6. DELETE and DROP statement 7. GROUP BY statement. Excel Equivalent of the same 8. UNION and JOIN statement. When to use and how 9. Create View using the aboves
4	Step by Step guide to build Views from an exiting OLTP Database- path to Datawarehouse	1. Define Data Models 2. Define Relationships (One to One, One to Many, Many to Many and Many to one) 3. Create Necessary Dimension and Fact Tables 4. Managing Slow Changing Dimensions
<b>Total</b>		<b>22 Hour</b>
<b>From DWH to Data Visualization - Insights and Discovery</b>		

1	Introducing Tableau	<ol style="list-style-type: none"> <li>1. Salient features of Tableau</li> <li>2. Installing Tableau (Take Student Edition)</li> <li>3. Fundamentals of Tableau: <ol style="list-style-type: none"> <li>a. Measures and Dimensions</li> <li>b. Calculated Fields</li> <li>c. Parameters</li> </ol> </li> <li>4. Filters and Grouping</li> </ol>
2	Creating simple Dashboard	<ol style="list-style-type: none"> <li>1. Connecting MySQL from Tableau and Access the relevant views.</li> <li>2. Perform MTD and YTD computation with % change from last year / last month</li> <li>3. Create stack bar with % contribution of each stack to the total</li> <li>4. Conditional Coloring of a Measures. Apply the</li> </ol>
<b>Total</b>		<b>10 Hour</b>