

## Fundamentals of Data Analytics

<b>Course Title</b>	<b>Fundamentals of Data Analytics</b>
<b>Course Length</b>	6 Weeks (2 classes/Week)
<b>Target Audience</b>	<ul style="list-style-type: none"><li>• Aspiring Data Analysts</li><li>• People performing data-related reporting in their organizations and looking for innovative ways to streamline the process</li></ul>

<b>Course Description</b>
<p>The course will start with understanding the basic concepts of Data Analytics. During the first phase of the course, students will focus on the science of analysing data and making conclusions for effective business decisions. Students will also learn basic data techniques in Microsoft Excel and create dashboards for managing the data. During the second phase of the course, students will focus on getting hands-on experience with SQL and creating the databases using Microsoft SQL Server 2016. This will enable students to format and design databases for organizations.</p> <p>Lastly, we will focus on visualizations using PowerBI. This will help students analyse the data and get relevant findings. The course will conclude with an overview of Data Analysis Expression (DAX).</p>

<b>Course Learning Outcomes</b>	
LO1:	Introduction to the Fundamentals of Data
LO2:	Building a dashboard in Excel using different data format techniques

LO3:	Introduction to Database Management Solutions
LO4:	Addressing SQL queries and exploring details (DDL vs DML)
LO5:	Using PowerBI for visualization

Course Summary			
Lecture	Module Name	Key Concepts/Topics Covered	Assessments
1	Introduction to the Fundamentals of Data Analytics	Understand Data Analytics Reviewing Data Format the data in Excel Key Excel Concepts Creating a Dashboard in Excel	Quiz
2	Introduction to Database Management Solution	What is a Database How to create a database using SQL Server Introduction to SQL language	Lab
3	Introduction to Database: Getting on board with Scripting	Using SQL Joins DML vs DDL Normalization of the Databases (Theory) Writing SQL Queries and formatting the Data	Quiz & Lab
4	Visualization	Overview of Microsoft PowerPlatform Understanding PowerBI Connecting PowerBI to different data sources	Quiz

5	Visualization: Advance	Filters, variables, and bookmarks in PowerBI Overview of DAX and data formatting in PowerBI Publishing the dashboard on Workspace Creating our first dashboard for Management	Quiz/Lab
6	Wrap Up	Revising the concepts studied during the course	Exam