

# Data Analytics Course Syllabus

## Excel: Basics to Advanced

- Text to Columns
- Concatenate
- The Concatenate Function
- The Right Function with Concatenation
- Absolute Cell References
- Data Validation
- Time and Date Calculations
- Conditional Formatting
- Exploring Styles and Clearing Formatting
- Using Conditional Formatting to Hide Cells
- Using the IF Function
- Changing the “Value if false” Condition to Text
- Pivot Tables
- Creating a Pivot Table
- Specifying PivotTable Data
- Changing a PivotTables Calculation
- Filtering and Sorting a PivotTable
- Creating a PivotChart
- Grouping Items
- Updating a PivotTable
- Formatting a PivotTable
- Using Slicers
- Charts
- Creating a Simple Chart
- Charting Non-Adjacent Cells
- Creating a Chart Using the Chart Wizard
- Modifying Charts

- Moving an Embedded Chart □ Sizing an Embedded Chart
- Changing the Chart Type
- Chart Types
- Changing the Way Data is Displayed
- Moving the Legend
- Formatting Charts
- Adding Chart Items
- Formatting All Text
- Formatting and Aligning Numbers
- Formatting the Plot Area
- Formatting Data Markers
- Pie Charts
- Creating a Pie Chart
- Moving the Pie Chart to its Own Sheet
- Adding Data Labels
- Exploding a Slice of a Pie Chart
- Data Analysis – Overview
- types of Data Analysis
- Data Analysis Process
- Working with Range Names
- Copying Name using Formula Autocomplete
- Range Name Syntax Rules
- Creating Range Names
- Creating Names for Constants
- Managing Names
- Scope of a Name
- Editing Names
- Applying Names
- Using Names in a Formula
- Viewing Names in a Workbook
- Copying Formulas with Names
- Difference between Tables and Ranges

- Create Table
- Table Name
- Managing Names in a Table
- Table Headers replacing Column Letters
- Propagation of a Formula in a Table
- Resize Table
- Remove Duplicates
  
- Convert to Range
- Table Style Options
- Table Styles
- Cleaning Data with Text Functions
- Removing Unwanted Characters from Text
- Extracting Data Values from Text
- Formatting Data with Text Functions
  
- Date Formats
- Conditional Formatting
- Sorting
- Filtering
- Lookup Functions
- Pivoting

## SQL PEDESTAL TO YOUR SUCCESS

- Introduction to Oracle Database
- Retrieve Data using the SQL SELECT Statement
- Learn to Restrict and Sort Data
- Usage of Single-Row Functions to Customize Output
- Invoke Conversion Functions and Conditional Expressions
- Aggregate Data Using the Group Functions
- Display Data from Multiple Tables Using Joins
- Use Sub-Queries to Solve Queries
- The SET Operators
- Data Manipulation Statements
- Use of DDL Statements to Create and Manage Tables

- Other Schema Objects
- Control User Access
- Management of Schema Objects
- Manage Objects with Data Dictionary Views
- Manipulate Large Data Sets
- Data Management in Different Time Zones
  
- Retrieve Data Using Sub-queries
- Regular Expression Support

## Power BI

### Module 1: Introduction to Power BI

- Get Started with Power BI
- Overview: Power BI concepts
- Sign up for Power BI
- Overview: Power BI data sources
- Connect to a SaaS solution
- Upload a local CSV file
- Connect to Excel data that can be refreshed
- Connect to a sample
- Create a Report with Visualizations
- Explore the Power BI portal

### Module 2: Viz and Tiles

- Overview: Visualizations
- Using visualizations
- Create a new report
- Create and arrange visualizations
- Format a visualization
- Create chart visualizations
- Use text, map, and gauge visualizations and save a report
- Use a slicer to filter visualizations
- Sort, copy, and paste visualizations
- Download and use a custom visual from the gallery

### Module 3: Reports and Dashboards

- Modify and Print a Report
- Rename and delete report pages
- Add a filter to a page or report
- Set visualization interactions
- Print a report page
- Send a report to PowerPoint
- Create a Dashboard
- Create and manage dashboards
- Pin a report tile to a dashboard
- Pin a live report page to a dashboard □ Pin a tile from another dashboard
- Pin an Excel element to a dashboard
- Manage pinned elements in Excel
- Add a tile to a dashboard
- Build a dashboard with Quick Insights
- Set a Featured (default) dashboard
- Ask Questions about Your Data
- Ask a question with Power BI Q&A
- Tweak your dataset for Q&A
- Enable Cortana for Power BI

### Module 4: Publishing Workbooks and Workspace

- Share Data with Colleagues and Others
- Publish a report to the web
- Manage published reports
- Share a dashboard
- Create an app workspace and add users
- Use an app workspace
- Publish an app
- Create a QR code to share a tile
- Embed a report in SharePoint Online

## Python

- What is python?
- Variable
- Operators
- Data Types
- The print statement
- Comments
- String Operations in Python
- Simple Input & Output
- Simple Output Formatting
- Operators in python
- Lists
- Dictionary
- Tuples
- LC
- Sets
- File I/O
- Overview of OOPS
- Exception Handling
- Function
- Numpy, Pandas

