

## Data analysis with power bi

### Course Syllabus

#### 1. **Description**

- The course is designed for anyone who needs to analyze data using POWER BI. In this course, you will learn how to import data into POWER BI and begin working with it, including data arrangement and transformations, business logic, and effective visualization.

#### 2. **Target Audience**

- Data/Business/Product Analysts
- BI Developers
- Project Managers
- Economists
- Product Managers
- Etc.

#### 3. **Knowledge Required**

Excel (pivot tables)

#### 4. **Schedule**

- 32 Academic hours

## Outline

### 1) Get and transform data ( 6 Academic hours)

- a) Get Data ( main sources: SQL server, excel/CSV, folder, text files, web)
- b) SQL query with power bi
- c) Introducing M language
- d) Power query interface
- e) Etl with power query (cleaning, transforming, data types, etc)
- f) Columns transformations (split columns, merge columns, add, transform, etc...)
- g) Functions ( Mathematical, text, date, etc...)
- h) Tables transformations ( Merge, Append, Group By, Unpivot)

### 2) Data Model (3 Academic hours))

- a) Fact and Dimension tables
- b) Relationships and granularity
- c) Date / Time tables
- d) Star schema
- e) Snowflake schema
- f) Best practices

### 3) Dax (6 Academic hours)

- a) Data view interface
- b) Calculated columns vs measures
- c) Row context / Filter context
- d) Functions ( statistical, mathematical, text, statistical)
- e) Time Intelligence
- f) Calculate

### 4) Effective Data Visualization (6 Academic hours)

- 1) Visual Perception – A Brief Overview
- 2) Graphs and Data scenarios
- 3) Graphs in power bi basic & market
- 4) Table graphs
- 5) Design best practices

**5) Ux / UI (4 Academic hours)**

- 1) Filters and slicers
- 2) Interactions
- 3) Buttons
- 4) Tooltips
- 5) Drill through
- 6) Bookmarks

**6) Dashboards (3 Academic hours)**

- 1) Definitions and Types of Dashboards
- 2) Dashboard vs Report
- 3) Dashboard Failure Reasons
- 4) Dashboard Characterization Process and User Guidance

**7) Power Bi Service (4 Academic hours)**

- 1) Interface
- 2) Licencing
- 3) Workplace and roles
- 4) Subscribe
- 5) Getway
- 6) Refresh
- 7) Edit reports
- 8) Create dashboard
- 9) Publish to web
- 10) App
- 11) Usage metrics