Publication date : 10/24/2025

Course : Microsoft BI, Excel tools for data analysis

Power Query, Power Pivot, 3D Map, Power BI, optional remote TOSA® certification

Practical course - 3d - 21h00 - Ref. PIB

Price : 2320 CHF E.T.

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BEST

Excel offers a set of integrated applications for connecting to and analyzing any data. You'll use Excel's complements to cleanse, transform and explore your data to create key performance indicators and relevant visual representations.

Teaching objectives

At the end of the training, the participant will be able to:

- Importing and cleansing data sources with Power Query
- Use Power Pivot to design relational data models in Excel
- Define indicators and Key Performance Indicators (KPIs) with DAX language
- Understanding the similarities and differences between Excel and Power BI
- Master query design
- Understanding the M language

Intended audience

People in charge of preparing data for analysis, designing indicators, producing and publishing dashboards.

Prerequisites

Good knowledge of Excel, calculation formulas and pivot tables.

Course schedule

PARTICIPANTS

People in charge of preparing data for analysis, designing indicators, producing and publishing dashboards.

PREREQUISITES

Good knowledge of Excel, calculation formulas and pivot tables.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant’s academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they’ve developed.

1 Excel business intelligence tools

- Discover Microsoft's Business Intelligence (BI) product offering.
- Description of a typical processing chain: import, transformation, loading a model, designing indicators.
- Overview of restitution tools.
- Pivot tables.
- Geographical and chronological visualization with 3D Map.
- What role for Power BI?

2 Querying and consolidating external data with Power Query

- Get to know Power Query's ETL (Extract Transform Load) functions.
- Connect to different data sources: Excel, text, .csv, relational databases, OLAP cubes.
- Rename and type data. Clean, transform and format data, build new columns.
- Edit query steps and preview the advanced editor.
- A few notions about the M language.
- Reorganize tables: Add, Merge, Rotate.

Hands-on work

Reformat data to be imported. Merge different lists. Create an aggregate table. Batch import and stack files.

3 Preparing your data model with Power Pivot

- Overcome Excel's limitations: manipulate over a million rows.
- Overcome Excel's limitations: link tables without ResearchV.
- Use DAX functions to build indicators.
- Exploit the data model using pivot tables.
- Star data model.
- Define and use a date table.

Hands-on work

Define relationships between tables. Design measures: indicators and KPIs. Deviations and percentage changes.

4 Create geographic and chronological presentations with 3D Map

- Discover the different representation modes available with 3D Map.
- Visualize the chronological evolution of your data.

Hands-on work

Produce a cartographic representation of data.

5 Introducing Power BI

- The Power BI suite: Power BI Desktop, Power BI Service and Power BI Mobile applications.
- Difference and equivalence with Power Query and Power Pivot.
- Special features of the Power BI data model.

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

6 Power BI report design

- Report creation. Layout visualizations.
- Display data: Table, Matrix, Map.
- Use data and visual formatting parameters.
- Add filtering tools and segments.
- Use cartographic visualizations.
- Import visual elements from the gallery.

Hands-on work

Produce a Power BI document including visual elements such as Matrix, Gauge, Funnel, Maps.

Options

Certification : 80 € HT

TOSA® certification certifies the learner's skills on a 1,000-point scale for a period of 3 years. The TOSA® diploma is issued if the learner's score exceeds 351 points. The program targets advanced to expert levels (score from 726 to 1,000). Once the exam has been taken, learners can consult their results live, and receive an e-mail with a certificate, a detailed summary of their skills and their diploma within 5 days. The exam lasts 1 H 00 and consists of 35 exercises alternating between manipulations on the software and multiple-choice questions, the difficulty of which varies according to the learner's answers. Unless specifically requested, the course is given by default in French and on the most recent software version. Monitoring is carried out by software and recorded for compliance control purposes.

Dates and locations

REMOTE CLASS

2026 : 3 June, 12 Aug., 21 Oct., 2 Dec.