COURSE SYLLABUS

COURSE TITLE: **752548 Microsoft Power BI Desktop and Microsoft Power Query**

FORMAT: Instructor-Led

CERTIFICATION EXAMS: None

This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs. Course content, prices, and availability are subject to change without notice.

ELEMENTS OF THIS SYLLABUS ARE SUBJECT TO CHANGE.

ABOUT THE COURSE

This course familiarizes the participant with Microsoft Power Query, a revolutionary data tool for Excel that allows you to intuitively discover and automate the import, transformation, and combination of data across a variety of data sources for use in Excel and Microsoft Power BI. Power Query is a free add-in for Excel that enhances the self-service Business Intelligence experience in Excel. The course uses Excel 2016, however Power Query works with Excel 2010 and above.

AUDIENCE

The student should be familiar with Excel and the concepts of datasets and basic reporting, including the use of PivotTables.

AT COURSE COMPLETION

After completing this course, students will be able to:

- Understand the revolutionary changes in Power Query and the ease it provides for Excel pros.
- Successfully navigate the Power Query interface.
- Understand and properly configure data types.
- Understand and perform importing data.
- Understand and perform transforming data.
- Understand and perform loading data.
- Understand and utilize ranges in Excel.
- Understand and handle special situations.
- Understand and perform appending operations.
- Understand and perform working with folders and files.
- Understand and perform combining worksheets.
- Understand and utilize PivotTables.
- Understand working with relational data.
- Understand and perform importing from SQL Server Analysis Services Multidimensional.
- Understand and perform importing from SQL Server Analysis Services Tabular.
- Understand the issues encountered when performing merges.
- Understand and utilize merges.
- Understand and perform loading into Excel.
- Understand and perform loading into PowerPivot.
- Understand and utilize loading to Power BI Desktop.
- Understand and utilize grouping.
- Understand and utilize summarizing.

- Understand the M interface.
- Understand Power Query formulas.
- Understand the process to customize formulas.

PREREQUISITES

Before attending this course, students must have:

- None

ADDITIONAL READING

To help you prepare for this class, review the following resources:

- None

MODULE 1: COURSE OVERVIEW

This module explains how the class will be structured and introduces course materials and additional administrative information.

Lessons

- Introduction
- Course Materials
- Facilities
- Prerequisites
- What We'll Be Discussing

Lab 1: COURSE OVERVIEW

- None

After completing this module, students will be able to:

- Successfully log into their virtual machine.
- Have a full understanding of what the course intends to cover.

MODULE 2: INTRODUCTION TO POWER QUERY

In this module, we will explore the Power Query interface and examine the importance of data types and how to properly utilize them.

Lessons

- Understanding The Ease That the Revolutionary Changes Afforded by Power Query Provide to The Excel Pro
- Examining The Power Query Interface
- Configuring Data Types

Lab 1: INTRODUCTION TO POWER QUERY

- Power Query Interface
- Understanding Data Types

After completing this module, students will be able to:

- Understand the revolutionary changes in Power Query and the ease it provides for Excel pros.
- Successfully navigate the Power Query interface.
- Understand and properly configure data types.

MODULE 3: WORKING WITH CSV, TXT AND EXCEL WORKSHEETS

In this module, we will explore working with CSV, TXT, and Excel worksheets. We will examine the import process and explore transforming and loading data. We will also cover utilizing ranges and working with large numbers of files and folders, then finish with sections on combining worksheets and utilizing PivotTables.

Lessons

- Importing Data
- Transforming Data
- Loading Data
- Using Ranges in Excel
- Understanding and Handling Special Situations
- Appending Operations
- Working with Folders and Files
- Combining Worksheets
- Using PivotTables

Lab 1: WORKING WITH CSV, TXT AND EXCEL WORKSHEETS

- Importing, Transforming, and Loading Data
- Utilizing Ranges
- Understanding and Handling Special Situations
- Appending Operations
- Working with Folders and Files
- Combining Worksheets
- Using PivotTables

After completing this module, students will be able to:

- Understand and perform importing data.
- Understand and perform transforming data.
- Understand and perform loading data.
- Understand and utilize ranges in Excel.
- Understand and handle special situations.
- Understand and perform appending operations.
- Understand and perform working with folders and files.
- Understand and perform combining worksheets.
- Understand and utilize PivotTables.

MODULE 4: WORKING WITH DATABASES

In this module, we will examine working with databases and walk-through the process of connecting and importing data from these sources.

Lessons

- Working with Relational Data
- Importing from SQL Server Analysis Services Multidimensional
- Importing from SQL Server Analysis Services Tabular

Lab 1: WORKING WITH DATABASES

- Importing From SSAS Multidimensional
- Importing From SSAS Tabular

After completing this module, students will be able to:

- Understand working with relational data.
- Understand and perform importing from SQL Server Analysis Services Multidimensional.
- Understand and perform importing from SQL Server Analysis Services Tabular.

MODULE 5: PERFORMING MERGES

In this module, we will examine the process of merging datasets. We will cover common issues encountered and discuss ways to resolve them.

Lessons

- Understanding the Issues
- Performing Merges

Lab 1: PERFORMING MERGES

- Performing Merges

After completing this module, students will be able to:

- Understand the issues encountered when performing merges.
- Understand and utilize merges.

MODULE 6: LOADING YOUR DATA

In this module, we will examine other places where you can load your data, such as Power BI Desktop. We will cover the options available with each area, and explore the different interfaces.

Lessons

- Loading into Excel
- Loading into PowerPivot
- Loading into Power BI Desktop

Lab 1: LOADING YOUR DATA

- Loading into Excel and PowerPivot
- Loading to Power BI Desktop

After completing this module, students will be able to:

- Understand and perform loading into Excel.
- Understand and perform loading into PowerPivot.
- Understand and utilize loading to Power BI Desktop.

MODULE 7: GROUPING AND SUMMARIZING WITH POWER QUERY

In this module, we will cover grouping and summarizing data with Power Query.

Lessons

- Grouping
- Summarizing

Lab 1: GROUPING AND SUMMARIZING WITH POWER QUERY

- Grouping and Summarizing

After completing this module, students will be able to:

- Understand and utilize grouping.
- Understand and utilize summarizing.

MODULE 8: WORKING WITH THE POWER QUERY LANGUAGE M (OPTIONAL)

In this optional module, we will examine the Power Query Language "M" and the capabilities that the language provides. We will also cover formulas and how to customize them.

Lessons

- Understanding the M Interface
- Power Query Formulas
- Customizing Formulas

Lab 1: WORKING WITH THE POWER QUERY LANGUAGE M (OPTIONAL)

- None

After completing this module, students will be able to:

- Understand the M interface.
- Understand Power Query formulas.
- Understand the process to customize formulas.