**Power BI**
An introduction to the different Power BI Products
When to use Power BI Desktop
Power BI licensing
Online Services and Databases that Power BI can connect to

**The BI Process**
The Business Intelligence process
How Power BI relates to the standard BI processes.

**Data Model & Transformation**
The Power Query process
Data transformation principles
Manual data clean-up example
A demonstration of how Power Query helps with efficient use of data query
Dimension and Fact Tables
Data Model considerations
Common Data Models

**Power Query UI**
Queries Area
Data section
The Transformations Ribbons
Query Settings Area
M Language Area

**Data Source**
Introduction to the data source used in this course
Creating Tables of Data
Import data from Excel
Import data from Web
Renaming Queries
Grouping Queries

**Column Transformations**
Adding Custom Columns
Renaming Query Steps
Changing Text Data Column Case
Duplicating Columns
Renaming Columns
Splitting Columns
Creating Conditional Columns
Creating Index columns

**Data Transformations**
Removing rows from Tables
Using first row as headers
Filtering data
Detect and change data type
Filling Null areas with values
Trimming text
Replacing values

**Date Transformations**
Disabling Auto Date/Time
Extracting year
Extracting quarter
Extracting month
Extracting date
Filter dates

**Unpivot data**
Unpivot columns

**Append and Merge Queries**
Append Queries
Merge Queries
Merge Query Types
Cleaning the resulting query

**Load data**
Including and Excluding Queries in report refresh
Enabling or disabling Query loading
Applying Queries
Viewing Query dependencies

**Data Modelling**
Introduction to data modelling
Relationship view
Auto detecting relationships
Cardinality and Cross Filtering
Creating relationships through Manage relationships
Changing Cross Filtering
Deleting relationships
Drage and drop to create relationships

**DAX**
An introduction to DAX
Comparing M Language to DAX
Comparing Measures to Calculated Columns
Referring to and Using Measures and Calculated Columns
Creating a simple SUM measure
Creating a Calculated column using the IF function
Simple DAX functions
The X Functions as iterators
Comparing SUM to SUMX
A use for AVERAGEX

**Quick Measures**
Introduction to Quick Measures
Quick Measure Categories
Aggregate per Category
Filters
Fine tuning the Quick Measure
Totals
Arithmetic
Text

**Time Intelligence Functions**
Visuals for Date / Time Reporting
Create a column for abbreviated month
Mark as Date Table
Quick Measure for Year to Date
Quick Measure for YTD with different year end
Quick Measure on an existing measure using YTD

**Advanced Visualisations**
Introduction to Waterfall charts
Create variance measures
Using variance measures in a Waterfall chart
Create drill down time series chart
Drill down chart interaction
Create drill down bar chart
Creating What if Parameters
Using What if parameters in a chart
Enabling Q & A in Power BI Desktop
Create a visual with Q & A
Using Bookmarks in Power BI Desktop
Bookmarks to filter data
Bookmarks to change visuals
Add buttons to access bookmarks

**Secure and Share Data**
Introduction to Row Level Security
Create Row Level Security roles
Test Row Level Security in Power BI Desktop
Overview of Online Sharing
Create Workspace Apps
Publish to a Workspace
Sharing workspace apps
Testing Workspace App in the Power BI service
Testing RLS in the App
Assigning Members to roles
Editing Workspace Apps
Creating reports in workspace apps
Unpublish App
Delete Workspaces

**Extended Topic A – Transformations**
Opening files and checking connections
Examine the underlying data
Find and Replace
Unpivot & Rename

**Extended Topic B – Query Parameters (Dynamic Web Query)**
Importing a web query using parameters
Creating a custom function
Defining a List to create a new Query
Invoking custom functions
Using Error checking processes
Cleaning queries
Create measures and visualise queried data

**Extended Topic C – Group By**
Using the Group By feature

**Data Normalisation Appendix**
The Normal Forms
1st Normal Form
2nd Normal Form
3rd Normal Form
Primary Keys
Relationships