Strategic Data Skills

Course Delivery - Structure

The Strategic Data Skills self-paced course is made up of the following modules:

Module 1: Building a healthy data ecosystem
Study Time: Approx 2.5 hours

The aim of this module is to introduce data, why it exists on a spectrum, and how to build a strong data infrastructure to support unlocking the full value from data.

Topics include:

What is data?

Why does data exist on a spectrum?

How data has changed the way we tell stories

Is your data infrastructure ready?

Measuring success

Barriers to success

Reflecting on your practice

Module 2: Organising and Validating Data
Study Time: Approx 3.5 hours

By the end of this module you will understand how to organise and clean data, as well as undertake activities to quality check and enable greater utility and interoperability of data.

Topics include:

The rising value of data

Gathering data

Organising and structuring data

Choosing the right structure and format for data

Cleaning data

[Optional] Getting started with OpenRefine
A brief, and optional, introduction to the open source tool 'OpenRefine'.

Hands-on: Organising and structuring data
This activity is AI-enabled and utilises the 'Automatic Tutor'. This uses generative AI to review the learners submission and provide personalised feedback.

Choosing and designing schemas

Module 3: Introduction to data analysis
Study Time: Approx 3.5 hours

By the end of this module you will have the skills to evaluate data from different sources in order to establish its quality, and carry out exploratory data analysis to produce insights.

Activity

Refining, observing, analysing and calculating

Seeing through a world of data

The shape of data

Trends in data

Filtering and pivot tables

Analysing the performance of the London Fire Brigade

Introduction to qualitative data analysis

Module 4: Telling stories with data
Study Time: Approx 3 hours

By the end of this module you will understand how to produce and present appropriate data visualisations that deliver a connected and relevant narrative.

Topics include:

Rising value to the public

Communicating outputs

Data visualisation formats

Fundamentals of visual perception and design

Visual deception

Turning visualisation into a story

Telling the story of the London Fire Brigade

Module 5: Data Ethics
Study Time: Approx 2.5 hours

By the end of this module you will be able to use tools to evaluate the potential impact of data, identify data ethics concerns and produce recommendations to mitigate potential negative

Activity

What is data ethics?

The Consequence Scanning Toolkit

Applying data ethics to real world scenarios

Next steps in data ethics