

Introduction to Data Visualisation

Online course learning objectives

This course teaches learners to master the principles for transforming data into powerful visualisations, with a fresh, creative approach from data visualisation guru, Andy Kirk. This course is perfect for anyone looking to gain an accessible, broad and thorough conceptual understanding of contemporary data visualisation to enhance the creativity and impact of their research.

This course will help learners to:

- Harness color, composition, interactivity, and annotation to tell their data story.
- Tailor their visualisations to their audience's needs and integrate critical thinking into their design decisions.
- Determine what is the most important, relevant and interesting content to portray to their audience.

Language: English

Time to complete: 12 hours

Instructor: Andy Kirk

Online course full syllabus

MODULE ONE: INTRODUCTION AND FORMULATING YOUR DESIGN BRIEF

Introduction to the subject of data visualisation, the design workflow and principles, and undertake the first stage of the design workflow, 'Formulating your brief'.

- Define the subject of data visualisation.
- Teach the value of following a design workflow to shape your thinking Help you understand the design principles that influence your thinking.
- Define the context of your visualisation and identify the circumstances that will impact on your process.
- Define the vision of your visualisation, identifying the experience and tone of voice that required.

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MODULE TWO: WORKING WITH DATA AND ESTABLISHING EDITORIAL THINKING

Explore the four steps towards understanding and preparing your data and learn about editorial thinking and perspectives. Acquiring the data - establishing the origin, methods and practicalities of obtaining your raw material.

- Examining the data - establishing a detailed understanding of its physical properties.
- Transforming the data - preparing it for analysis.
- Exploring the data - using visualisation techniques to help us understand the qualities it may possess.
- Determining what is the most important, relevant and interesting content to portray to our audience.
- Editorial perspectives - deconstructing an existing visualisation.

MODULE THREE: DEVELOPING YOUR DESIGN SOLUTION: DATA REPRESENTATION AND INTERACTIVITY

Learn how to show what you want to say and create the right user experience.

- Learning the fundamentals of data encoding.
- Exploring a gallery of chart types to understand the roles and characteristics of different charts.
- Understanding the influencing factors and considerations for data representation.
- Features for interactivity - data and presentation adjustments.
- Influencing factors and considerations for interactivity.

MODULE FOUR: DEVELOPING YOUR DESIGN SOLUTION: ANNOTATION, COLOUR AND COMPOSITION

Learn how to offer the right level of assistance, apply colour for legibility and organisation, and consider the layout of all your contents.

- The key features for annotating your work at both the overall project level and within or around your charts.
- The influencing factors that will shape your feature selections and deployments.
- Applications of color - data legibility, editorial focus, functional harmony.
- Influencing factors and considerations for color.
- Features for composition - project and chart composition.
- Influencing factors and considerations for composition.
- Reflects on the different talents, attitudes and knowledge one needs to possess in order to truly possess the all-round capabilities demanded by data visualisation.
- Provides further references and resources to help you continue developing your data visualisation capabilities.