

How the course works

First of all, note that this is an asynchronous course. That means there are no live events scheduled at specific times. You can log in to the course and complete activities throughout the week at your own pace, at the times and on the days that are most convenient for you.

The course materials are organized into six weekly modules. Alberto Cairo and Simon Rogers will be the lead instructors for this course and will be joined by a great team of instructors:

- Debra Anderson, co-founder of Datavized
- Duncan Clark, co-founder of Flourish
- Jan Diehm, journalist-engineer, The Pudding
- Minhaz Kazi, developer advocate, Google Data Studio
- Dale Markowitz, software engineer, Google
- Marco Túlio Pires, News Lab lead, Google
- Katherine Riley, data journalist, Flourish

Each weekly module will feature videos, presentations, readings, discussion forums, and messages from the instructors. Each module will include both conceptual and practical videos to help enhance your understanding and practical application of the material. There will be a quiz each week to test the knowledge you've gained from the course materials. The weekly quizzes, and weekly participation in the discussion forums, are the basic requirements for earning an optional certificate of participation at the end of the course.

This course is very flexible, and if you are behind with the materials, you have the entire length of the course to complete them. We do recommend you complete each of the following before the end of each week so you don't fall behind:

- Video lectures
- Readings and handouts/exercises
- Participation in the discussion forums
- Quizzes covering concepts from video lectures and/or readings

The course is divided into six weekly modules:

Introduction Module: Course Introduction

In the introductory module, you will get an overview of the course structure and meet the instructors.

Module 1: Finding and getting data

Instructors: Marco Túlio Pires, Google News Lab; Jan Diehm, The Pudding; Alberto Cairo, University of Miami

In this module you will learn to:

- Find usable data online
- Assess sources of data
- Understand different data file formats
- Download the data

Module 2: Preparing data

Instructors: Marco Túlio Pires, Google News Lab; Simon Rogers, Google News Lab

In this module you will learn to:

- Process and clean data
- Get the data ready to be analyzed and visualized
- Develop good practices in data processing

Module 3: Finding stories in data

Instructors: Minhaz Kazi, Google Data Studio; Alberto Cairo, University of Miami

In this module you will learn to:

- Identify potential insights in data sets
- Use free tools to conduct basic exploratory analysis

Module 4: Machine learning in data journalism

Instructors: Dale Markowitz, Google; Simon Rogers, Google News Lab

In this module you will learn to:

- Identify what machine learning is and isn't
- See applications of machine learning in newsrooms
- Use these tools for investigative journalism

Module 5: Visualizing data

Instructors: Duncan Clark, Flourish; Katherine Riley, Flourish; Debra Anderson, Datavized; Alberto Cairo, University of Miami

In this module you will learn to:

- Create visualizations that don't just consist of designing beautiful maps and charts, but that are understandable
- Understand essential visualization concepts, such as visual encodings
- Choose the right chart or map depending on the nature of the data and the messages it's meant to convey

Module 6: Data-driven storytelling

Instructors: Jan Diehm, The Pudding; Simon Rogers, Google News Lab

In this module you will learn to:

- Determine how storytelling fits into the broader data landscape
- Identify what makes a good data story, and what makes it relatable and memorable
- Identify the different shapes that data storytelling can take
- Embrace experimentation, with examples from The Pudding