

## Q2016 Quality Conference course

**Theme of the Course/Workshop: Data Visualization for the Communication of Official Statistics Facilitator:** Alberto Cairo, University of Miami (UM)

### Programme

Time slot	Topic
09:30 – 09:45	Introduction and objectives of the course Presentation of the lecturer and participants
<b>Morning session</b>	<b>Data visualization for communication: general overview:</b>
09:45 – 11:00	1. Visualization for communication: An Introduction. 2. Free visualization tools: An overview.
11:00 – 11:30	Coffee-Break
11:30 – 12:15	3. From Tukey's Exploratory Data Analysis (EDA) to visualization for communication 4. Truthful Visualization: How to avoid misleading audiences.
12:15 – 13:00	Working groups -Case studies
13:00 – 14:00	Lunch Break
<b>Afternoon session</b>	<b>Data visualization for communication: principles of design and narrative issues</b>
14:00 – 15:30	5. Choosing the most appropriate graphic forms to represent data, depending on the purposes of the visualization. 6. Graphic Design for statisticians and scientists: Improving the looks of your charts and maps.
15:30 – 16:00	Coffee-Break
16:00 – 16:30	7. Narrative, interaction, and multimedia in visualization.
16:30 – 17:00	Working groups -Case studies Conclusions/challenges

### Description and objectives of the course

The visual presentation of quantitative data is quickly becoming a mainstream language among statisticians, scientists, business analysts, journalists, and designers. The increasing availability of free online tools and programming languages facilitates the creation of visualizations to either explore or present data to different audiences.

However, the growing sophistication of visualization software tools isn't being matched by a growing understanding of principles of design. This is the challenge this course will address.

### Objectives

This course focuses on how to present data visually to the general public, not to specialists. Therefore, participants will learn how to choose the best graphic forms to represent their data as charts and data maps, and also fundamental rules of perception, cognition, and graphic design (composition, color, type, etc.) Finally, they will learn how to build narratives based on data.

**Participants' profile**

The Course is addressed to participants dealing with visualization in the context of official statistics, e.g. in National Statistical Institutes, in other public administrations producing official statistics, in International Organisations; and to those willing to look for practical guidance in designing charts for print documents, websites, slides, etc.. No previous experience is required.

**Instructor's profile**

Alberto Cairo is the Knight Chair in Visual Journalism at the University of Miami (UM), where he teaches data visualization and infographics. He is also director of the Visualization Program at UM's Center for Computational Science.

He is the author of the books "The Functional Art: An Introduction to Information Graphics and Visualization" (2012) and "The Truthful Art: Data, Charts, and Maps for Communication" (2016). He has been director of infographics and multimedia at several news organizations, like El Mundo online (Spain 2000-2005) and Editora Globo (Brazil, 2010-2012), besides working as a consultant and instructor for companies and educational institutions in more than twenty countries.

His website is [www.thefunctionalart.com](http://www.thefunctionalart.com) and his Twitter handle is [@albertocairo](https://twitter.com/albertocairo).