

## BSC Training Course: Introduction to Big Data Analytics

### Objectives

The objective of this course is to introduce the main concepts and technologies related to Big Data and Data Analytics and its applications to real projects.

The course brings together key information technologies used in manipulating, storing, and analysing data including:

- Introduction to storage and process unstructured data. Main concepts of NoSQL databases
- Large scale processing: Apache Spark and its core libraries for data manipulation, machine learning, data streams and graph analytics
- Characterization of a data mining problem and its relation with business intelligence, dig data and exploratory statistics
- Basic concepts of data visualization and tools
- Awareness on existing biases in Big Data Analytics and Artificial Intelligence (AI) from a multidisciplinary perspective

### Learning Outcomes

Students will be introduced to systems that can accept, store, and analyse large volumes of unstructured data. The learned skills can be used in data intensive application areas.

#### Academic Staff

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**Course Convener:** Maria-Ribera Sancho, E&T Manager, BSC

**Course Lecturers:** Josep Lluís Berral (BSC), Patricio Reyes (BSC), Miguel Ponce de León, Computational Biology (BSC), Guillermo Marin, Designer for Scientific Visualization (BSC), Carlos García Calatrava (BSC), Atia Cortés (BSC), María Flores (BSC), Hèctor Orenge, Caterina Calsamiglia and Álvaro Junquera, Computational Social Sciences and Humanities Laboratory (BSC)

#### Materials

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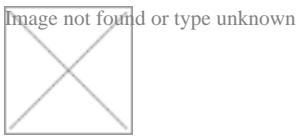


**The relevant materials will be made available to the participants during the course.**

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#### [Further information](#)



#### **BSC Training Courses do not charge fees.**

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**Sponsor:** BSC

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