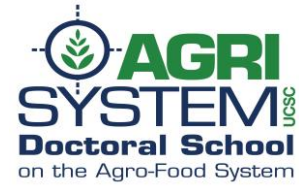




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## TOWARDS BIG DATA – INFORMATIC TOOLS FOR DATA MANIPULATION, PART 1

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### Course Aims

The course "Towards Big Data - Informatic Tools for Data Manipulation, Part 1" aims at providing both the theoretical and practical foundations needed to manipulate and extract information from large datasets using informatics tools.

### Methodology

Recent technological innovations in data production and collection have accelerated the generation of new data at an unprecedented pace. The Big Data revolution offers exciting opportunities and challenges to researchers, who now require specific informatics skills to fully leverage these ever-growing datasets.

The lectures are designed to allow participants to directly apply each new concept introduced by the instructor.

The highly interdisciplinary and practical nature of the topics, combined with the use of freeware platforms and software, will enable participants to integrate their newly acquired knowledge into their daily research routines from the very first lesson.

### Course description

Big data in agriculture: sources and data type (8 hours)

Online Resources

UNIX Command Line Tools

- a. Basic commands and concepts.
- b. Data exploration and extraction.
- c. Data query and editing: regular expressions.

2. Using the data: R

- a. Basics of R programming.
- b. Data structure, exploration, and visualisation.

## Recommended texts