



International Summer School Ioannina, 8-9 April 2020

“Introduction to Basic Statistical Tools and Data Analysis in Research”

Aim and participation

The target audience for the school is Master and PhD students, mainly in Chemistry, Material Sciences, Engineering, Environmental Sciences and Medical Sciences, planning to employ statistical methods to process data and to extract valuable information. Other students interested in this topic are also welcome. The objective of the school is to provide detailed knowledge on chemometric tools, covering topics from introductory statistics to advanced data analysis methods.

Registration

The 15 AQUALity Fellows will have to pay 75 € to cover lunches and coffee breaks. Instead, the tuition fee for the 15 AQUALity Fellows will be covered by Ioannina University.

Fee for externals to AQUALity: 200 €.

Programme and General Information

Timetable:

9.00 – 9.30 Registration of participants (only Wednesday 8/4)
9.30/11.00 – 11.30/13.00 Morning sessions
(Wednesday/Thursday)
14.30/16.00 – 16.20/17.50 Afternoon sessions
(Wednesday/Thursday)

Topics:

- Distribution and types of data
- Descriptive statistics
- Significance testing
- Choosing the right statistical procedures
- Non parametric methods
- Experimental Design: Introduction, basic terminology
- Full factorial designs
- Fractional factorial designs
- Response surface methods (RSM)
- Python Crash Course
- Data Analysis – Pandas
- Data Visualization
- Machine learning and statistical pattern recognition

Site: Lectures will be held at the Department of Chemistry (Room X2-090), University of Ioannina, Panepistimioupolis, 45110, Ioannina (Greece).

