



Nature and Life Sciences Faculty- Ibn Khaldoun university-Tiaret



Workshop: Leverage your data analysis skills with R Programming (September 17th, 2023)

Vast amounts of data are being generated in modern-day bioscience research, and they require cutting-edge data analysis techniques to unlock their full potential. This workshop will walk the participants through (bio) statistical methods and steps to select the right tests.

Instructor:

Dr. Drabo Moustapha Soungalo (Postdoc, Ghent University, Belgium)

Specialty

Bioscience engineering, food sciences, and nutrition

Location

Nature and life sciences, Ibn Khaldoun University, Tiaret, Algeria

Attendees

30 participants

Target group

scientists that have done or plan to do a statistical analysis of their data.

Course prerequisites

The participants should have validated at minimum their Master 1 and already followed an introductory statistical course during their initial training.

(Participants should bring their laptops).

Organizing Committee

President:	Dr. Fatima Dahlia (Univ. Tiaret)
Members:	Dr. Badra Boubakeur (Univ. Tiaret)
	Dr. Hafidha Khadem (Univ. Tiaret)
	Dr. Djamila Mezouar (Univ. Tiaret)

Participation fees

PHD students: 1000 DA.

Teachers and researchers: 5000 DA.

Program

9h00 – 10h30 : Foundations of data analysis: (bio)statistical methods and tests

10h30 – 11h00: Break

11h00 – 12h30: Introduction to RStudio

12h30 – 13h30: Break

13h30 – 16h30 : Leverage your R skills

1. Exploiting sources of variation in your data (The different ANOVA methods will be extensively illustrated with examples from scientific studies. We will focus on correct execution of data analysis using RStudio and understanding the results. We pay attention to expressing these conclusions in a correct and understandable way.)
2. Data wrangling & plotting with Tidyverse
3. Dynamic report generation with R Markdown
4. Further learning tips and resources

The timetable is indicative and will be adjusted according to the actual progress of the group.

To be downloaded and installed before the seminar:

R (<https://cran.r-project.org>)

R-studio (<https://www.rstudio.com/products/rstudio/download/>)

Rhea (<https://github.com/Lagkouvardos/Rhea/archive/refs/heads/master.zip>)

DivCom

(<https://github.com/Lagkouvardos/DivCom/archive/refs/heads/main.zip>).