

Module 215: “Minor B Introduction to R: computing, graphics for statistics and epidemiology “

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R is a language and environment for statistical computing and graphics. R is highly extensible and is free software. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. The course assumes no prior knowledge of R and covers the following topics.

Prerequisite: you are assumed to be familiar with elementary statistical methodology such as hypothesis testing, analysis of variance, regression models etc.

| Monday November 18 | Tuesday November 19 | Wednesday November 20 | Thursday November 21 | Friday November 22 |
|---|---|--|---|--|
| 9:00 <u>R & RStudio</u> - R packages - R command and script - Rmarkdown Nolwenn Le Meur | 9:00 Quizz <u>Descriptive statistics</u> - summary - univariate tests - intro to grammar-oriented programming Nolwenn Le Meur | 9:00 Quizz <u>Graphical functions</u> - Basic plots - ggplot2 library Nolwenn Le Meur | 9:00 Quizz <u>Regression modelling</u> - Linear regression - Logistic regression - Poisson regression Nolwenn Le Meur | 9:00 Project: Dataset analysis Nolwenn Le Meur |
| 12:00 -1:00 Lunch | 12:00-1:00 Lunch | 12:00-1:00 Lunch | 12:00-1:00 Lunch | 12:00-1:00 Lunch |
| <u>Data management</u> - Importing (reading) - Data types and structure - Recoding variable - Exporting (saving) Nolwenn Le Meur 4 pm | Practice Nolwenn Le Meur 4 pm | Practice Nolwenn Le Meur 4 pm | Practice Nolwenn Le Meur 4 pm | Project: Dataset analysis Nolwenn Le Meur 4 pm |

Please note that some small changes could occur