

Module 215: “R statistical software for statistics and epidemiology “

Coordinator: Nolwenn Le Meur

EHESP 20 Avenue George Sand 93210 LA PLAINE ST DENIS

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 2	Tuesday November 3	Wednesday November 4	Thursday November 5	Friday November 6
9:00  <u>R &amp; 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
<b>12:00 -1:00 Lunch</b>	<b>12:00-1:00 Lunch</b>	<b>12:00-1:00 Lunch</b>	<b>12:00-1:00 Lunch</b>	<b>12:00-1:00 Lunch</b>
<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*