UE Biostatistics, bioinformatics, modeling (part II)

ECTS
6 credits

Component
UFR Chimie-Biologie

> **Teaching language(s):** English
> **Open to exchange students:** Yes
> **Code d'export Apogée:** YAX9BI38

Presentation

Description

Course outline

At the end of the course, the students should be able to analyze a "omic" dataset. More precisely, they should be able.

1- to load, explore and summarize graphically a dataset.

2- to compute confidence interval estimates for proportions, means and variances.

3- to formulate hypotheses, compute tests statistics, interpret p-values and make practical decisions for the

standard parametric and non-parametric tests.

4- to adjust simple and multiple linear models, analyses of variance (anovas), logistic regression, Cox

model.

5- to select genes that explain a response variable by applying multiple testing approaches.

6- to analyze a data set of differential gene expression.

Course parts

UE Biostatistics, bioinformatics, modeling (part II)- TD	Tutorials (TD)	12h
UE Biostatistics, bioinformatics, modeling (part II) (part II) - CM	Lectures (CM)	27h

Period : Semester 9

Skills

Overview of the principal techniques of statistical data treatment, with an emphasis on practical skills and the use of the statistical software R.

Useful info

Contacts

Program director
Leclercq-Samson Adeline

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Place

> Grenoble

Campus

> Grenoble - University campus