DATA ANALYSIS AND APPLIED STATISTICS TO AGROFOOD

LEVEL: MASTER 1
PERIOD: SEMESTER 1
LANGUAGE: EN
ECTS: 3
TEACHER/COORDINATOR: PIERRE VANDENDRIESSCHE

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1-Main objectives

To take into account the multiple backgrounds, this course is designed to improve basic and advanced knowledge of statistics and probabilities

2-Skills developed

Being able to master all relevant statistical tools related to statistical quality control, process control and R&D in Food Science.

3-General content

Tutorial class essentially, interactive lecture, problems, real case studies

- Basic Statistics: tables, charts
- Numerical descriptive measures
- Basic probabilities (events, Bayes, conditional)
- Discrete distributions (Binomial, Poisson, Hypergeometric…)
- Continuous Distributions (Normal, Fisher, Student…)
- Sampling
- Confidence Intervals (mean, proportion…)
- Hypothesis Testing
- Single and Multiple Sample tests (parametric and non parametric)
- ANOVA (one way, two ways, randomized block design)
- Post Hoc Tests (Tukey…)
- PCA, CA, HAC, MCA

4- Evaluation

Presentation of case study analyze in groups of 3 or 4 students.

- 50% written presentation (Power point)
- 50% oral presentation