

- Faculté des sciences
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Nonparametric statistics (3ST2007)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en statistique	Cours: 2 ph	controle continu: 1	3

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Printemps

Equipe enseignante:

Dr. Clément Chevalier
Institute of statistics

Objectifs:

The student gains some knowledge of nonparametric statistical methods. Emphasis is put on nonparametric tests for one or many related or unrelated samples, and on kernel density estimation.

Contenu:

- Nonparametric location comparison tests such as the median test, sign test, Wilcoxon's signed-rank test and Wilcoxon's sum of rank test (along with Mann-Whitney U test), Kruskal-Wallis and Friedman's test.
- Nonparametric goodness of fit tests (Kolmogorov-Smirnov, Cramer-Von Mises...).
- Histogram and Kernel density estimation.
- If time permits, nonparametric regression.

Forme de l'évaluation:

The final mark will be based on a 2 hour written test which takes place during the last week of the lecture. Unless the professor and the student both agree on a different date, the re-examination will take place at the same time as the examination for the students of the following year. The re-examined students will pass the 2 hour written examination under the same conditions as the ones which apply to the students of the following year. This includes possible changes regarding the program of the lecture.

Documentation:

Applied nonparametric statistical Methods (2007), Sprent P. and Smeeton N.C., Chapman & Hall.
Density estimation for statistics and data analysis, Silverman B.W., Chapman & Hall.

Forme de l'enseignement:

3 ECTS credits.
Compulsory course for the master in statistics.