

- Faculté des sciences
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### **Nonparametric statistics (3ST2007)**

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
<b>Master en statistique</b>	<b>Cours: 2 ph</b>	<b>Voir ci-dessous</b>	<b>3</b>

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

#### Période d'enseignement:

- Semestre Automne

#### Equipe enseignante

Dr. Pierre-Yves Deléamont,  
 Institute of statistics  
 Av. de Bellevaux 51  
 CH - 2000 Neuchâtel

#### Contenu

- Tests on one sample (sign test, Wilcoxon test, Friedman test)
- Tests on two or more samples (median test, Mann-Whitney-Wilcoxon test, Kruskal-Wallis test)
- Goodness-of-fit tests (Pearson chi<sup>2</sup>-test, Kolmogorov-Smirnov test, Cramér-von Mises test, Anderson-Darling test)
- Density estimation (histogram, kernel density estimation)
- Basics of nonparametric regression

#### Forme de l'évaluation

The final mark will be based on a 2 hour written examination.

Students retaking this course will pass the 2 hour written examination under the same conditions as the ones which apply to the students of the current 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 (1986), Silverman B.W., Chapman & Hall.

#### Forme de l'enseignement

- 3 ECTS credits
- Fall semester
- Elective course for master in statistics (choose 18/24 ECTS).