Probability/Statistics

ECTS : 4

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Langue du cours : Français

Volume horaire : 36

Description du contenu de l'enseignement :

Chapter 1 : We mostly review the concepts covered in the stat I course (UE 07). Chapter 2 : Sampling.

- Sampling, sample mean, sample variance.
- Convergence in probability and in distribution
- Law of large numbers
- Central limit theorem

Chapter 3 : Estimation

- Parametric estimation
- Bias, variance and mean squared error
- Moment method estimation
- Maximum likelihood estimation
- Confidence intervals

Pré-requis obligatoires

1. The Stat I handout on probabilities (**UE 07**, "Partie 1 : Probabilités").
2. The course called "outils mathématiques" (**UE 15**).

Pré-requis recommandés

It is an asset if you know the basics of Python (first year course "informatique"). But the knowledge of Python is not mandatory for this statistics course.
It is also an asset if you are comfortable with chapters 1 and 2 of the stat I handout on descriptive statistics (UE 07, "POLY-StatDesc-L1").

Coefficient : 1.00