

- Faculté des sciences
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### Survey Sampling 2 (3ST2017)

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

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

#### Période d'enseignement:

- Semestre Printemps

#### Equipe enseignante:

Professeur : Yves Tillé

#### Objectifs:

At the end of the course, the student must be able to design a sampling survey and to provide appropriate estimations and confidence intervals by using auxiliary information.

#### Contenu:

That second part is dedicated to the problem of estimation with auxiliary information. The difference estimator, ratio estimator, regression estimator, are presented as particular case the general theory of calibration. The third part is dedicated to particular topics of survey sampling like treatment of nonresponse, small domain estimation.

#### Forme de l'évaluation:

2 hours written exam at any exams session

#### Documentation:

- Y. Tillé (2001). Théorie des sondages : Echantillonnage et estimation en population finie, Dunod, Paris.
- Y. Tillé (2006), Sampling Algorithms, New York, Springer-Verlag
- P. Ardilly et Y. Tillé (2005). Sampling Methods : Exercises and Solutions, 382 pages, Springer-Verlag, New York.

#### Pré-requis:

Survey sampling 1

#### Forme de l'enseignement:

- 3 ECTS credits
- Spring Semester
- Elective course for master in statistics (choose 18/24 ECTS)
- Exercises are put into practice based on the theory taught during the course. A large part of the exercices are dedicated to simulations of sampling selection and estimation by means of the `sampling` package of the R language.