- Faculté des sciences
- www.unine.ch/sciences

Survey Sampling 1 (3ST2016)

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

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

Période d'enseignement:

- Semestre Automne

Equipe enseignante:

Professeur : Yves Tillé

Objectifs:

At the end of the course, the student must be able to describe and implement the main sampling designs and the main estimation procedure.

Contenu:

The first part of the course is dedicated to the planning of surveys. After a presentation of the general definition, the particular designs are introduced : simple random sampling, stratification, cluster sampling. The second part is dedicated to
the problem of estimation with auxiliary information. The difference estimator, ratio estimator, regression estimator, are presented.

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:

None

Forme de l'enseignement:

- 3 ECTS credits
- Autumn Semester
- Compulsory course for the master in statistics
- 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.