

- Faculté des sciences économiques
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Introduction to survey statistics (5ME2003)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en méthodologie d'enquête et d'opinion publique (avant 2015)	Cours: 4 ph	écrit: 2 h	6

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

Période d'enseignement:

- Semestre Printemps

Equipe enseignante:

Prof. Dr. Beat Hulliger
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Objectifs:

The course will give the students the necessary training to establish alone or in collaboration with a survey statistician the sample design for a survey, to use appropriate estimators and to adapt the methods to cope with deviations from the ideal plan.

Contenu:

This course is about the statistical methods used in surveys.

The principle of random sampling and the main types of sample designs (simple random sampling, stratified random sampling, cluster sampling, two-phase sampling, rotational designs) are introduced and the classical estimators for these designs are treated. Enhancement of the estimators through the use of external auxiliary information using linear models is discussed. Classical and resampling variance estimation is treated.

The second part of the course will treat deviations from the paradigm of random sampling and how to deal with them. Frame deficiencies, unit and item non-response treatment, detection and treatment of erroneous data, in particular of outliers will be discussed.

Forme de l'évaluation:

Students are assessed through a final examination (2h written exam)
E : 2-hour written test during the end-of-semester examination session.

Reexamination session (August-September) : 2h written test

Documentation:

Lohr, Sharon L. (2010): Sampling: Design and analysis (2nd ed), Boston: Brooks/Cole (Cengage Learning), ISBN 9780495105275

Pré-requis:

Students are expected to have knowledge and skills in applied statistics including testing and regression modelling as well as knowledge of the software R.

Forme de l'enseignement:

6 ECTS credits

- Compulsory course for master in public opinion and survey methodology
- Spring Semester
- Course: 4 hours

Teaching will be based on inputs from the lecturer and hands-on training with the statistical software R.