

- Faculté des sciences
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### Statistical analysis for survey research (UniNe) (3ME2003)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
<b>Master en méthodologie d'enquête et d'opinion publique</b>	<b>Cours: 4 ph</b>	<b>écrit: 2 h</b>	6

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

#### Période d'enseignement:

- Semestre Automne

#### Equipe enseignante:

Dr. Matti Langel  
[matti.langel@unine.ch](mailto:matti.langel@unine.ch)

#### Objectifs:

The objectives of the course are to provide students with:

- general knowledge in statistics and data analysis
- an introduction to probability theory and inferential statistics
- the ability to apply regression techniques and run model diagnostics.
- an introduction to longitudinal data analysis (mixed models).
- notions for more specific courses (statistical softwares, survey sampling, factorial methods and cluster analysis).

#### Contenu:

This course covers a wide variety of topics in statistical analysis, including some practical applications. After a short review of descriptive statistics, the course will cover the main aspects of inferential statistics, including probability theory, statistical distributions, hypothesis testing and confidence intervals. The second half of the semester will be dedicated to statistical models such as linear and logistic regression as well as mixed models. The R software will be used in practical applications.

#### Forme de l'évaluation:

Students are assessed through a 2-hour written examination during the session of exams (in January- february 2016).

#### Documentation:

Refer to general literature / bibliography of the POSM master program

#### Pré-requis:

Students are expected to have taken introductory statistics courses in their bachelor program.