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

Advanced regression methods (3ST2003)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en statistique	**Cours: 2 ph** **TP: 2 ph**	**écrit: 2 h**	6

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

Période d'enseignement:

- Semestre Automne

Equipe enseignante:

Professeur : Y. Tillé
Institut de statistique

Assistante : Audrey-Anne Vallée,

Objectifs:

- To present the methods of the general linear model in a formal way including the fundamental results as the Gauss-Markov Theorem and the general theory of Wald test.
- To teach students how to apply the presented methods by means of the R language.
- To teach students to be able to choice the appropriate regression method for given datasets.

Contenu:

Univariate and multivariate regression. Method of least squares.
General linear model. Hypotheses and development. Gauss-Markov theorem.
Estimation, inference. Inference. Test of hypotheses.
The general family of Wald tests.
Heteroscedasticiy, autocorrelation.

Forme de l'évaluation:

2 hours written exam during the session.

Documentation:

Syllabus available on the claroline platform.

Forme de l'enseignement:

- 6 ECTS, with 3 ECTS course and 3 ECTS exercices
- Automn semester
- Compulsory course for the master in statistics