- 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**	**Voir ci-dessous**	6

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

Période d'enseignement:

- Semestre Automne

Equipe enseignante

Dr. Denis Devaud
Institut de statistique

Assistants : Audrey-Anne Vallée, Ziqing Dong

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 choose the appropriate regression method for given datasets.

Contenu

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

Forme de l'évaluation

2 hours written exam at any exam session.

Documentation

Syllabus available on Moodle platform.

Forme de l'enseignement

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