

- Faculté des sciences
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### Advanced regression methods (3ST2003)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
<b>Master en statistique</b>	<b>Cours: 2 ph TP: 2 ph</b>	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

Prof. Yves Tillé  
Institut de statistique,  
Av. de Bellevaux 51  
CH - 2000 Neuchâtel

Assistant: Raphaël JAUSLIN.

#### 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
- Heteroscedasticity, autocorrelation

#### Forme de l'évaluation

2 hours written exam at any exam session. Authorized documents : syllabus without annotations

#### Documentation

Syllabus available on Moodle platform.

Tillé, Y. (2020). Advanced regression methods, University of Neuchâtel.

Exercises available on the Moodle platform.

#### Pré-requis

Probability, Linear Algebra, Theory of Tests.

#### Forme de l'enseignement

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