

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

Generalized linear model (3ST2008)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en statistique	Cours: 2 ph	controle continu: 1	3

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

Période d'enseignement:

- Semestre Printemps

Equipe enseignante:

Dr. Alina Matei
Institut de Statistique
Av. de Bellevaux 51, CH-2000 NEUCHÂTEL
Office phone : +41 32 718 13 27 - email : alina.matei@unine.ch

Objectifs:

At the end of the course, the students will: be familiar with some commonly used generalized linear models, know when and how to apply which model in practice, be able to perform, interpret the output and report the results of GLM analyses using R.

Contenu:

Introduction to the theory and applications of generalized linear models. Topics include logistic regression, multinomial regression, Poisson regression, contingency tables, etc. Applications in R.

Forme de l'évaluation:

A) First attempt
CA graded: written 2 hours exam during the last week of the course. The exam also includes a practical part in R.

Attendance
The students must attend the exam.

B) Second attempt

Retake exams
- 2h exam.

Retake exam deadline

- The exam will be organized by the teacher in agreement with the student, before the end of the corresponding exam session (not in Pidex).

Documentation:

- McCullagh, P, Nelder, JA, Generalized Linear Models, 2nd edition, Chapman & Hall, 1989

- Meyers, R.H., Montgomery D.C., Vinning G.G. and Robinson, T.J., Generalized Linear Models with applications in Engineering and the Sciences, 2nd edition, Wiley, 2010.

- Dobson A.J. and Barnett A.G., An Introduction to Generalized Linear Models, 3rd edition, Chapman & Hall, 2008.

- Faraway J.J., Extending the Linear Model with R, Generalized Linear, Mixed Effects and Nonparametric Regression Models, Chapman & Hall, 2006.

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

Generalized linear model (3ST2008)

Pré-requis:

Regression analysis and knowledge of R.

Forme de l'enseignement:

- Compulsory course for master in statistics
- Spring Semester
- Course + practical exercises on computer: 2 hours