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

Generalized linear model (5ST2019)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en méthodologie d'enquête et d'opinion publique	**Cours: 2 ph**	**cont. continu**	3
Master en statistique	**Cours: 2 ph**	**cont. continu**	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
Pierre-à-Mazel 7, CH-2000 NEUCHATEL
office phone :+41 32 718 13 27 - email : alina.matei@unine.ch

Objectifs:

At the end of the course, the students should be able to understand the principles, to apply the methods, and to correctly interpret the results of a data analysis based on a a Generalized Linear Model.

Contenu:

Introduction to the theory and applications of generalized linear models. Topics include logistic regression, Poisson regression, log-linear models, over-dispersion, Box-Cox transformation model, etc.

Forme de l'évaluation:

ES : two 2-hour written exam during the last week of the semester.

Reexamination session (August-September) : 2h written test

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.

Pré-requis:

Basics of Statistics, Linear Regression Models

Forme de l'enseignement:

- 3 ECTS credits
- Compulsory course for master in statistics
- Spring semester
- Exercises : Applications using the software R