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

Statistics (3BL2185)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie	**Cours: 30 pg**	**Voir ci-dessous**	3

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

Période d'enseignement:

- Semestre Automne

Equipe enseignante

R. Slobodeanu

Contenu

This course is a continuation of the third year course in 'Biostatistiques' (3BL1165). We will review some of the more advanced linear models with normal errors such as ANCOVA and multiple regressions. We will examine generalized linear models (GLM) with non-normal error functions that are adapted to analyze binomial data (for proportions), Poisson data (for counts). We will also study the concept of fixed versus random factors in experimental design and how these are used together to form mixed effects models.

Forme de l'évaluation

Continuous assesment graded.
The final grade will be based on independent homework assignments (50%) and a take-home final exam (50%).
Reexamination next sessions, same year, must be organized directly with the professor (not in Pidex, please contact the professor).

Documentation

We will use "The R Book" by Michael J. Crawley.

Pré-requis

'Introduction à la statistique et exercices' (3MT1012) = first-year statistics course

'Biostatistiques'* (3BL1165) = third-year statistics course

*'Biostatistiques' was formerly known as 'Statistiques paramétriques, gestion des données et design expérimental' (3BL1100).

You should be familiar with the following concepts: mean, variance, standard deviation, degrees of freedom, standard error, confidence limits, hypothesis testing, p-values, two samples t-tests, paired t-tests, analysis of variance (ANOVA), regression, analysis of covariance (ANCOVA), and multiple regression. You should also be familiar with the software program R and RStudio.

Forme de l'enseignement

Teaching will include lectures and time in the computer room to analyze data.