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

Statistics (3BL2185)

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

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

Période d'enseignement:

- Semestre Automne

Equipe enseignante:

Maarten Voordouw

Objectifs:

The objective of this course is to deepen our understanding of analyzing more complex data sets using the software package R. There will also be more emphasis on how to incorporate statistics into scientific writing.

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:

The final grade will be based on independent homework assignments and a take-home final exam.

Documentation:

We will use "The R Book" by Michael J. Crawley, which is available as a free pdf file on https://archive.org/details/TheRBook

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).

Forme de l'enseignement:

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