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

Genomics of biodiversity (3CB2003)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie	**Cours: 28 pg**	**Voir ci-dessous**	3

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

Période d'enseignement:

- Semestre Printemps

Equipe enseignante

Kay Lucek
Paula Escuer
Ashwini Mohan
Camille Cornet

Contenu

Through a combination of lectures, hands-on experience with genetic and genomic data using online tools and R and discussing research papers in class we will explore what genomic data is and how it can be used to study biodiversity. You will learn what sequencing technologies are currently available and what population genomic approaches can be used to study different evolutionary process underlying biodiversity. Moreover we will discuss different different species concepts and relate them to biodiversity assessments.

Forme de l'évaluation

CA graded : The evaluation is based on written tasks and presentations on each day of the course combined with a final written report. The final grade will consist of the average of all grades. The modality will be communicated at the beginning of the course.

Modalités de rattrapage

Second attempt: if the final grade is below 4.0 and not compensated in the module, the students have the possibility of repeating the written report during the autumn semester. Must be coordinated with the professor (not in Pidex).

Documentation

All necessary documentation will be made available through Moodle.

Pré-requis

This is a master-level course. Your own computer is required for the practical part. Ideally you are already familiar with the R statistical language.

Objectifs d'apprentissage

Au terme de la formation l'étudiant-e doit être capable de :

- Write an assessement
- Interpret genetic data
- Distinguish different species concept
- Conceptualise an evolutionary framework for species conservation
- Explore sequence data

Compétences transférables

- Differentiate between different genomic approaches and identify their pro and cons
- Interpret the way biodiversity is assessed
- Apply an evolutionary thinking