

- Faculté des sciences
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## Biodiversity and Ecosystems Functioning (3BL2285)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
<b>Master en biologie</b>	<b>Cours: 30 pg</b>	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

prof. Clara Zemp

### Contenu

This course tackles the importance of biodiversity for ecosystem functioning and the services they provide to people.

The course covers the following aspects:

- Human impacts on biodiversity and ecosystem functioning across spatial scales
- Ecosystem functions, ecosystem services and Nature Contribution's to people
- The multiple facets of biodiversity
- The empirical approaches to assess the impact of biodiversity loss on ecosystem functioning
- The biological mechanisms of the biodiversity-ecosystem functioning relationships, including interactions
- multidiversity and multifunctionality
- Implications for the management, restoration and conservation of ecosystems.

The course includes lectures, scientific paper readings and presentations, as well as group discussion.

Furthermore, the students will practice the communication of scientific evidences to a broad audience of non-specialists, such as school children. More specifically, the students will choose one specific aspect of the course and will develop a storyboard for the production of short videos by the Swiss media "RTS-Découverte".

### Forme de l'évaluation

The grade will consist of a paper presentation (40%, ca. 20 minutes), the overall contribution to group's discussion (20 %) and the storyboard for RTS-Découverte (40%, one-page max).

### Forme de l'enseignement

Lectures, seminar, group discussion and group work.  
The storyboard will be conducted in close collaboration with RTS-Découverte.

### Objectifs d'apprentissage

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

- Discuss the scientific evidences on role of biodiversity for ecosystem functions and services
- Structure the arguments for the importance of biodiversity for ecosystems and societies
- Describe a specific scientific study related to biodiversity and ecosystem functioning
- Criticise a scientific study about biodiversity effects on ecosystems in a constructive manner
- Balance strengths of evidences related to biodiversity effects on ecosystem functioning
- Communicate the major findings of a scientific paper related to biodiversity and ecosystem functioning

### Compétences transférables

- Communicate scientific topics to non specialists
- Transfer scientific knowledge to your peers
- Work in group
- Question the validity of an argument