

Subject Area: **Advanced Methods in Biotechnology and Biodiversity**

Subject: **Theoretical framework of forest restoration**

Level: **PhD**

Year: **I-IV**

Semester: **1-2**

Speciality: **N/A**

Status: **Facultative**

ECTS: **3**

Department(s): **Ecology Dept.**

Cooperating Department:

Form of teaching (Number of hours: Form of assessment: Exam or Credit

Lectures:	Conversatoria	(Field labs) Practicals	Total
2	0	28	30

Staff:

SUBJECT COORDINATOR: Anna Orczewska PhD

LECTURES: Anna Orczewska PhD

FIELD LABS: Anna Orczewska PhD

Contents:

LECTURES:

The aim of the module is to broaden the students' knowledge on the ecological processes involved in the forest restoration, leading to the successful recovery of forest structure and biodiversity; to become familiar with forest restoration methods used in forest recovery projects around the world, with special emphasis on woodlands in temperate climate zone, to distinguish between economic and ecological indices of a successful forest restoration

FIELD LABS:

Detailed characteristics of the ecological processes involved in the course of forest recovery, discussions on forest recovery case studies described in literature

Field visit on forest recovery sites; direct observation and description of ongoing processing in the field

Methods and forms of teaching: Lectures illustrated by computer presentations, discussions on the ecological processes and mechanisms involved in the forest recovery (including students' short presentation of a selected theoretical problem) ; development of skills of identification of theoretical and practical problems during the field visit (case-study analysis)

Requirements:

Knowledge of general ecology and botany

Literature:

Mansourian S., Vallauri D., Dudley N. 1986. Forest restoration in Landscapes. Beyond Planting Trees. Springer.

Weber N. (ed.). 2000. NEWFOR – New Forest for Europe: Afforestation in the turn of the century. EFI Proceedings 35, European Forest Institute

Honnay O., Bossuyt B., Verheyen K., Butaye J., Jacquemyn H. 2002 Ecological perspectives for the restoration of plant communities in European temperate forests. *Biodiv. And Conserv.* 11: 175-178.

Honnay O., Hérault B., Bossuyt B. 2009. Opportunities and constraints of using understorey plants to set forest restoration and conservation priorities. . W: Villard M.-A., Jonsson B. G. (red.), *Setting targets for managed forest landscapes.* . Cambridge University Press, s. 227.243.

Wallace E. B. (red.). 2011. *Woodlands: Ecology, Management and Conservation.* Nova Science Publishers Inc., New York.

Remarks (*if necessary*):